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June 8, 2009

SENT BY CERTIFIED MAIL
RETURN RECEIPT REQUESTED

**CONSENT DECREE
CIVIL ACTION NO. CV 98-3-H-CCL
EAST HELENA SITE
WORK PERFORMED IN MAY 2009
PROGRESS REPORT #125**

Dear Ms. Jacobson:

On May 5, 1998, Asarco and the United States Environmental Protection Agency (EPA) entered into a Consent Decree (Decree) to further the objectives of the Resource Conservation and Recovery Act (RCRA) and the Clean Water Act (CWA). Section XI of the Decree (Reporting: Corrective Action) requires Asarco to submit certified monthly progress reports to EPA which discuss the actions taken by Asarco in achieving compliance with the Decree. The reports are to be submitted to EPA no later than the twentieth (20th) day of the following month. The following describes only those activities that have occurred or are related to projects performed during May 2009 and early June 2009. The historical actions taken by Asarco in achieving compliance with the Decree are contained in previous monthly progress reports.

a. Describe the actions, progress, and status of projects which have been undertaken pursuant to Part VII of the Decree;

On May 6, 2009, Asarco provided EPA with 1) updated hard copies and compact diskettes of the Asarco owned property in the East Helena area and 2) hard copy maps that identify the railroad property in the general vicinity of the East Helena Plant.

On May 7, 2009, Asarco provided EPA with revised selenium groundwater plumes maps to reflect the analytical results obtained during the February 2009 sampling event.

In a May 11, 2009 electronic mail communication, Asarco responded to EPA's request for the location of groundwater monitoring well TW-1, which is positioned near the former speiss dross area inside the slurry wall.

On May 15, 2009, Scott Brown (EPA Region VIII, Montana Office) provided the EPA Regional Office with a summary of his investigation into alleged cattle deaths that were reported by the Burnham family. On May 28, 2009, EPA provided to Asarco the certificate of analysis from a cattle liver tissue sample prepared for Clint Hill Veterinary Services. On May 29, 2009, Asarco participated in a conference call with EPA Region VIII personnel and shared Exponent's summary analysis of the cattle liver toxicology report.

On May 20, 2009, Asarco submitted electronic mail responses to EPA's questions on 1) replacement of the temporary liners current in use at the facility, 2) installation of an improved liner for year's project, and 3) coordination of the RFI sample collection with placement of new liners.

On May 26, 2009, Asarco submitted an electronic mail response to EPA's questions regarding Gary Burnham's request to provide irrigation water from Prickly Pear Creek to the head gate of the Wilson Irrigation Ditch.

On May 28, 2009, Asarco forwarded to EPA the logs for monitoring wells EH-123 through EH-127.

2009 Cleaning and Demolition Work Plan

On May 5, 2009, Asarco conducted a mandatory pre-bid walk through for the 2009 Cleaning and Demolition Work. All contractors in attendance of the pre-bid walkthrough were provided a site wide tour of the project and were allowed two additional days for self-guided tours of the site to assist in their preparation of bids. On May 18, 2009, the Montana Department of Environmental Quality (Iver Johnson) was provided a listing of questions and answers that were generated during the May 5, 2009 pre-bid walk through. On May 19, 2009, Asarco received bids from nine contractors for completing the 2009 Cleaning and Demolition Program and 2009 Interim Measures Work Plan Addendum Project. All bids were comprehensively reviewed in order to select the contractor with the best qualifications and technical expertise. On May 29, 2009, Asarco provided EPA with the results of the contractor evaluation and a recommendation for selecting URS/CWC. On June 1, 2009, Asarco provide EPA with a summary cost table from the nine bidding contractors. On June 1, 2009, EPA, in consultation with the Montana Department of Environmental Quality advised Asarco to proceed with notifying URS/CWC of the selection, including the proposal to Express Services to complete the tasks outlined in Additive Alternate A.

During May 2009, ARCADIS conducted the historic recordation of buildings scheduled for cleaning and demolition prescribed in the 2009 Cleaning and Demolition Work Plan. This task included pulling engineering drawings for

identified buildings for digitizing and photographing the buildings for the historic recordation report. The scope of fieldwork reflected direction from the Phase 1 recordation. The scope and process was deemed acceptable from both EPA and the Montana State Historic Preservation Officer.

On May 18, 2009, Asarco submitted to EPA a package containing the laboratory raw data (including the QA/QC packages) for samples collected during the CAMU waste hauling and demolition footprint sampling. Three compact diskettes of photographs obtained during the demolition footprint sampling were included with the submittal.

Phase 2 RCRA Facility Investigation (RFI) Characterization and Risk Assessment Work Plan

In an April 9, 2009 letter, EPA outlined a revised schedule for review of the technical memorandum and submittal date of May 29, 2009 for the Phase 2 RFI Characterization and Risk Assessment Work Plan. The revised schedule called for EPA submission of final comments to the Technical Memorandum by May 8, 2009. In a May 15, 2009 communicated, EPA advised Asarco of their inability to meet the May 8, 2009 deadline, indicated that further EPA comments would be forthcoming on May 28, 2009, and established June 19, 2009 for the submission of the Phase 2 RFI Characterization and Risk Assessment Work Plan.

In a May 29, 2009 letter, EPA informed Asarco that the ecological risk assessment (ERA) work would be segregated from the remaining RFI Phase 2 Risk Assessment and Characterization Work Plan. EPA further advised Asarco that the remaining comments on the human health risk assessment protocols, data collection needs, and remaining Phase 2 RFI work plan components would be forthcoming in the next two weeks. EPA directed Asarco to 1) submit a separate ERA Work Plan, which responded to EPA's May 29, 2009 comments, for expedited EPA review and approval, 2) submit an interim ERA report within 30 days following completion of the ERA Work Plan, 3) and complete any additional activities identified in the interim report in 2010, followed by submission of a draft ERA Report within 45 days of completing the approved work. Asarco is currently examining the EPA's ERA comments and will request a conference call to clarify EPA comments.

Interim Measures

In an April 27, 2009 letter, EPA provided comments to Asarco's March 19, 2009 Updated Monitoring Program. On May 20, 2009, Asarco submitted to EPA the 2009 Groundwater and Surface Water Sampling and Monitoring Plan (May 2009) that responded to EPA comments. In the cover letter that was attached to the Plan, Asarco renewed its March 19, 2009 request for EPA approval and written confirmation that the costs for implementing the Program qualifies for credit under the prospective Custodial Trust Agreement.

On May 5, 2009, Hydrometrics sampled the five new groundwater monitoring wells constructed pursuant to the 2009 Supplemental Groundwater Investigation Work Plan. The analyses from this sampling event were submitted to Energy Laboratory for rapid turnaround of arsenic and selenium. On May 12, 2009, Asarco submitted to EPA the May 5, 2009 preliminary laboratory results along with a sample result summary table and map of the groundwater well locations. In a May 14, 2009 letter, EPA directed Asarco to perform further measures in responses to the May 5, 2009 laboratory results. On May 15, 2009, Asarco communicated to EPA that samples from select groundwater monitoring wells and Prickly Pear Creek were collected with expedited laboratory analysis requested.

On May 22, 2009, Asarco provided EPA with the requested sampling and analysis from selected groundwater monitoring wells and Prickly Pear Creek, an evaluation of the data, and a proposal for constructing new monitoring wells and incorporating existing irrigation wells into the groundwater investigation.

On May 28, 2009, Asarco notified EPA of its efforts to construct the new monitoring wells while accommodating non-Asarco property owner's criteria.

On June 1, 2009, Asarco provide EPA with a final proposal for construction of new monitoring wells sites and sampling of a surface water monitoring location. On June 1, 2009, EPA approved Asarco's proposal. The construction of the new monitoring wells commenced on June 1, 2009.

Corrective Action Management Unit (CAMU)

In an April 29, 2009 letter, Womack and Associates, Inc. transmitted to Asarco the report entitled, "Quality Assurance Site Observation Summary Report, Asarco LLC's East Helena Corrective Action Management Unit, Phase 2 Cell, East Helena, Montana". EPA was provided a hard copy and electronic file of the report. In responses to a May 19, 2009 request, Asarco mailed three additional copies and compact diskettes of the report to EPA on May 26, 2009.

During May 2009, Asarco personnel continued to perform weekly inspections of the cell liner and surrounding areas to check for tears, sandbag placement, anchor trench pullout, and fence conditions. Hydrometrics personnel continued to monitor and pump the leachate collection system as weather permitted. Approximately 1800 gallons of leachate was pumped from the leachate collection system in May 2009. The leak detection sump continues to have zero flow, but will continue to be monitored and pumped if necessary.

RI/FS Long-Term Monitoring Program

During May 2009, the Semi-Annual Monitoring Program commenced with the preparation and performance of the prescribed sampling. The required sampling was completed in late May 2009.

On May 29, 2009, Asarco and EPA participated in a conference call to discuss the Montana Department of Environmental Quality Public Water Supply and Subdivision Bureau and Source Water Protection Program's May 27, 2009 letter, which requests the 1) sampling of 16 public water supplies, 2) ascertaining of Prickly Pear Creek gains and losses, and 3) installation of sentry well on the north side of Prickly Pear Creek. On May 29, 2009, Asarco provided EPA with the data base of public water supplies previously sampled by Asarco.

On May 13, 19, and 27, 2009, Asarco conducted the annual sampling of select residential groundwater wells, as prescribed in the 2009 Groundwater and Surface Water Sampling and Monitoring Plan (May 2009). The irrigation system well at the St. Germaine residence could not be accessed in May 2009. The analytical results from the two of the three sampling events have been received from Energy Laboratory. Copies of these May 2009 residential well notification letters along with the respective laboratory analytical reports are attached to this monthly progress report.

A summary of the correspondence transmitted as part of the East Helena Consent Decree in May 2009 is included in Attachment 1.

b. Identify any requirements under the Part VII of the Decree that were not completed in a timely manner, and problems or anticipated problem areas affecting compliance with the Decree;

There were no requirements that were not completed in a timely manner nor were there problems or anticipated problem areas that may affect compliance with the Decree.

c. Describe projects completed during the prior month, as well as activities scheduled for the next month;

In accordance with the 1) 2006 Interim Measures Work Plan Addendum, Final Cleaning, Soil Sampling, Backfilling, and Interim Cap Work Plan and 2) 2006 Interim Measures Work Plan Addendum, Former Acid Plant Sediment Drying Area Slurry Wall, Monitoring, Operation, and Maintenance Work Plan, four areas in which interim caps have been installed are being inspected on a monthly basis. In December 2008, these monthly inspections were expanded to include areas in which above grade demolition activities were conducted under the 1) 2008 Interim Measures Work Plan and 2) 2008 Cleaning and Demolition Project Work Plan, with the most recent inspections occurring on May 6, 2009.

CAMU Landfill - In accordance with the July 2000 CAMU Design Analysis Report (Operation and Maintenance Plan), the CAMU is being inspected monthly with the last inspection occurring on May 4, 2009. The inspections of the CAMU Phase 2 cell temporary cover are being conducted on a weekly schedule. These

monthly and weekly inspections documented that the CAMU Phase 1 and Phase 2 cell are operating as designed.

During June 2009, URS/CWC will begin preparing, securing, establishing, and/or conducting the prescribed plans, permits, schedules, precautions, measures, and/or meetings set forth in approved 2009 cleaning and demolition work plan. The mobilization of the field crews is anticipated in early July 2009.

During June 2009, Asarco is scheduled to collect water quality samples from the 16 public water supply systems identified in the Montana Department of Environmental Quality Public Water Supply and Subdivision Bureau and Source Water Protection Program's May 27, 2009 letter.

During June 2009, the video recordation will be prepared to document the demolition of the Blast Furnace Stack, the Acid Plant Stack, and the Sinter Stack. ASARCO will work closely with SHPO during the development of the video of the stacks and will provide a draft outline of the video contents to the agencies for discussion purposes. An End of Field Work Summary will be submitted to Montana SHPO for review and approval. Once reviewed, SHPO concurrence for commencement of the cleaning and demolition activities is anticipated.

During June 2009, Asarco will continue with the construction of the new monitoring wells sites and sampling of a surface water monitoring location. The new monitoring wells are scheduled to be developed, surveyed, and sampled the third week of June 2009. Slug tests are scheduled to be performed on the seventeen new monitoring wells in June 2009.

d. Describe and estimate the percentage of studies completed;

The Pump and Treat Pilot Scale Testing for Source Area Reduction of Groundwater Contamination is approximately 100% complete.

The jar testing (Phase I) of the East Helena PRB Materials Testing Program is 100% complete.

The slurry wall construction in the former acid plant sediment drying area is 100% complete. On July 24, 2008, Asarco submitted to EPA the Addendum to Interim Measures Work Plan, Former Acid Plant Sediment Drying Wall, Monitoring, Operations, and Maintenance Report, Asarco East Helena Facility.

The interim capping project for the former acid plant sediment drying area, dross area, sinter plant area, gas cleaning section of the acid plant, thaw house, contact section of the acid plant, blast furnace baghouse, blast furnace flue, and Monier flue is 100% complete.

The revised January 2008 CAMU Phase 2 Cell Design Analyses is 100%

complete, the CAMU Phase 2 Cell financial assurance is fully funded, and construction and 2008 waste placement within the CAMU Phase 2 cell is 100% complete.

The slurry wall construction in the former speiss-dross plant area is 100% complete. On September 18, 2008, Asarco submitted to EPA the Addendum to Interim Measures Work Plan, Speiss-Dross Area Slurry Wall, Monitoring, Operations, and Maintenance Report, Asarco East Helena Facility.

Asarco completed the historic recordation tasks associated with the 2008 Cleaning and Demolition Work Plan. On September 23 and 30, 2008, the Phase 1 Historic Recordation Reports were submitted to EPA.

The obligations contained in the 2008 Interim Measures Work Plan Addendum, Blast Furnace Flue and Monier Flue Cleaning and Demolition and Demolition Footprint Exposed Areas Soil Sampling are 100% complete. On February 20, 2009, the findings from this completed work plan were submitted to EPA in a Summary Report.

Asarco completed the 2008 construction activities associated with the CAMU Phase 2 Cell. On January 30, 2009, the CAMU Phase 2 Cell, 2008 Construction Report was submitted to EPA.

Asarco (through ARCADIS) completed the historic recordation of buildings scheduled for cleaning and demolition prescribed in the 2009 Cleaning and Demolition Work Plan.

e. Describe and summarize all findings to date;

The details of past findings through April 2009 are described and summarized in previous monthly progress reports.

f. Describe actions being taken to address problems;

There were no other actions required to address problems associated with the Decree.

g. Identify changes in key personnel during the period;

There were no changes in key personnel during the period. Asarco continues to use the services of Hydrometrics Incorporated to perform the various activities required under the Consent Decree.

h. Include copies of the results of sampling and tests conducted and other data generated pursuant to work performed under Part VII of the Decree since the last Progress Report. Asarco may submit data that has been validated and confirmed by Asarco to supplement any prior submitted data. Updated

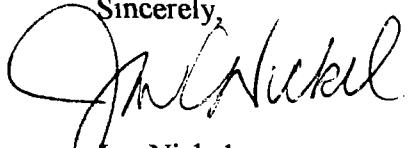
validated and confirmed data shall be included with the RFI Report, if not delivered before;

One validation package entitled "*Validation Summary, Asarco East Helena Post RI/FS Long-Term Monitoring Project, East Helena Residential Groundwater, Inorganic Analyses, April 2009 Sample Event*" is attached to this monthly progress report.

One data submittal entitled "*February 2009 Quarterly Monitoring Data Submittal, Asarco East Helena CAMU Monitoring Wells*" is attached to this monthly progress report.

- i. **Describe the status of financial assurance mechanisms, including whether any changes have occurred, or are expected to occur which might affect them, and the status of efforts to bring such mechanisms back into compliance with the requirements of this Decree.**

ASARCO filed a voluntary petition for relief under chapter 11 of Title 11 of the United States Bankruptcy Code in the Southern District of Texas on August 9, 2005. ASARCO hopes to use its chapter 11 bankruptcy proceeding to improve its financial position to the point where it can successfully reorganize and emerge from bankruptcy. ASARCO further hopes that at that time it will be in a position to make the required financial assurance demonstration. Asarco has established the necessary CAMU Phase 2 Cell financial assurance and has provided EPA with the complete executed original of the CAMU Trust Fund Agreement.

Sincerely,

Jon Nickel

**CERTIFICATION
PURSUANT TO U.S. v ASARCO INCORPORATED
(CV-98-3-H-CCL, USDC, D. Montana)**

I certify under penalty of law that this document, May 2009 Progress Report and all attachments, were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Signature T. Aldrich

Name: Thomas L. Aldrich

Title: Vice President Environmental Affairs

Date: June 5, 2009

**CONSENT DECREE
EAST HELENA SITE
MAY 2009 PROGRESS REPORT
SUMMARY OF CORRESPONDENCE
ATTACHMENT 1**

DATE OF TRANSMITTAL	CORRESPONDENCE SENT FROM	CORRESPONDENCE SENT TO	SUBJECT	RESPONSE
May 6, 2009	Jon Nickel	Linda Jacobson	Asarco and Railroad Property Map	No Formal Response Required
May 7, 2009	Jon Nickel	Linda Jacobson	Revised Selenium Plume Maps	No Formal Response Required
May 11, 2009	Jon Nickel	Linda Jacobson	Response to Monitoring Well TW-1 Location	No Formal Response Required
May 29, 2009	Jon Nickel	Linda Jacobson	Exponent's Summary Analysis of Cattle Toxicology Report	No Formal Response Required
May 26, 2009	Jon Nickel	Linda Jacobson	Response to Gary Burnham's Irrigation Water Conveyance	No Formal Response Required
May 20, 2009	Jon Nickel	Linda Jacobson	Response to Temporary Cover and Interim Measures Sample Collection	No Formal Response Required
May 28, 2009	Jon Nickel	Linda Jacobson	Logs for Monitoring Wells EH-123 through EH-127	No Formal Response Required
May 18, 2009	Jon Nickel	Iver Johnson	List of Pre-Bid Questions and Answers	No Formal Response Required
May 29, 2009	Jon Nickel	Linda Jacobson	Demolition Contractor Evaluation	June 1, 2009 EPA Approval of URS/CWC and Express Services

June 1, 2009	Jon Nickel	Linda Jacobson	Demolition Contractor Cost Table	June 1, 2009 EPA Approval of URS/CWC and Express Services
May 18, 2009	Jon Nickel	Linda Jacobson	Laboratory Data from 2008 CAMU Waste Hauling	No Formal Response Required
May 20, 2009	Jon Nickel	Linda Jacobson	2009 Groundwater and Surface Water Sampling and Monitoring Plan (May 2009)	Written Approval from EPA Required
May 12, 2009	Jon Nickel	Linda Jacobson	Analytical Results from May 5, 2009 Monitoring Well Sampling	EPA's May 14, 2009 Directive for Additional Measures
May 15, 2009	Jon Nickel	Linda Jacobson	Notification of Sample Collection	No Formal Response Required
May 22, 2009	Jon Nickel	Linda Jacobson	Submittal of Sample Results, Data Evaluation, and Proposed Groundwater Investigation	No Formal Response Required
May 28, 2009	Jon Nickel	Linda Jacobson	Notification for Placement of New Monitoring Wells	No Formal Response Required
June 1, 2009	Jon Nickel	Linda Jacobson	Final Proposal for Construction of New Monitoring Wells	EPA June 1, 2009 Approval
May 19, 2009	Jon Nickel	Linda Jacobson	Additional Copies of Womack CAMU Summary Report	No Formal Response Required
May 29, 2009	Jon Nickel	Linda Jacobson	Data Base from Public Water Supply System Sampling	No Formal Response Required
Attached to This Monthly Progress Report	Jon Nickel	Linda Jacobson	Validation Summary, Asarco East Helena Post RI/FS Long-Term Monitoring Program, East Helena Residential Groundwater, Inorganic Analyses, April 2009 Sample Event	No Formal Response Required

Attached to This Monthly Progress Report	Jon Nickel	Linda Jacobson	February 2009 Quarterly Monitoring Data Submittal, Asarco East Helena CAMU Monitoring Wells	No Formal Response Required
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VALIDATION SUMMARY
ASARCO EAST HELENA POST RI/FS LONG-TERM
MONITORING PROGRAM
EAST HELENA RESIDENTIAL GROUNDWATER
INORGANIC ANALYSES
APRIL 2009 SAMPLE EVENT
(ENERGY LABORATORY WORK ORDER NO. H09040136)

Prepared for:
Mr. Jon Nickel
Asarco LLC
PO Box 1230
East Helena, MT 59635

Prepared by:
Linda L. Tangen
6900 Cherry Blossom Lane
Albuquerque, NM 87111

May 2009

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GLOSSARY OF TERMS

CLP.....	Contract Laboratory Program
COC.....	Chain of Custody
CRDL.....	Contract Required Detection Limit
DI.....	Deionized Water
DIS.....	Dissolved
DQO.....	Data Quality Objective
ELI-Hel	Energy Laboratories, Inc., Helena, Montana
EPA.....	U.S. Environmental Protection Agency
ICV	Initial Calibration Verification
IDL	Instrument Detection Limit
LCS.....	Laboratory Control Sample
LFB.....	Laboratory Fortified Blank
MS	Matrix Spike
NA	Not Applicable
PDLG.....	Project Detection Limit Goal
QC	Quality Control
RI/FS.....	Remedial Investigation/Feasibility Study
RPD	Relative Percent Difference
SC	Specific Conductivity
TDS	Total Dissolved Solids

SUMMARY

East Helena private well water (groundwater) samples were collected April 14, 2009 for the ASARCO East Helena Facility Post RI/FS Long-Term Monitoring sample event. Inorganic constituents for these samples were validated using U.S. Environmental Protection Agency (EPA) guidelines for data validation (EPA 2002) and the project work plan (ASARCO 2002 and 2007). Samples were analyzed by Energy Laboratories, Inc. (ELI-Hel) in Helena, Montana, under work order H09040136.

The validated database is located in Appendix 1. Field notes, chain of custody forms, and laboratory reports are located in Appendices 2, 3, and 4, respectively.

Data quality objectives for this project are as follows:

- **Precision** is determined by field and laboratory duplicate sample results that are within control limits. The completeness objective for precision is 90% of the duplicate sample results within control limits. **This objective was met as 100% of the field and laboratory duplicate results were within control limits.**
- **Accuracy** is determined by laboratory control sample (LCS) and matrix spike (MS) sample results that are within control limits. The completeness objective for accuracy is 90% of the LCS and MS sample results within control limits. **This objective was met as 100% of the LCS results and 100% of the MS results were within control limits.**

***Note:** Due to the lack of LCSs for dissolved metals, fortified laboratory blanks were used to assess the accuracy for these analytes. In several cases, samples used for matrix spikes for were from unknown sources and therefore, could not be used to evaluate the accuracy of this sampling event's data. This is explained further in the following report.

- **Completeness** is calculated by the number of valid (not rejected) data per number of planned data, expressed as a percentage. The completeness goal for this project was 90%. **This goal was met as 100% (112 out of 112 planned measurements) of the planned data were analyzed and deemed valid.**

Conclusion

The data collected in April 2009 for the ASARCO East Helena Post RI/FS Long Term Monitoring Program are deemed acceptable and can be used for the purposes they were intended. Of the measured results, **100% can be used without qualification.**

Data Validation Report by: Linda L. Tangen

Client Review: Jon Nickel

DATA VALIDATION REPORT

1. INTRODUCTION

- This validation applies to analyses for five groundwater and quality control samples collected on April 14, 2009 for the ASARCO East Helena Post RI/FS Long-Term Monitoring Program (ASARCO 2002 and 2007). Samples were analyzed by Energy Laboratories in Helena, Montana (ELI-Hel) under work order H09040136. One field blank and one field duplicate samples were included with these samples.
- Validation procedures used are generally consistent with:
 - EPA Contract Laboratory Program (CLP) National Functional Guidelines for Inorganics Data Review (EPA 2002)
 - Work Plan – Interim Measures Work Plan Addendum (ASARCO 2002)
 - Post RI/FS Long-Term Monitoring Program (ASARCO 2007)
 - Other
- Overall level of validation:
 - CLP
 - Standard – Field and laboratory quality control (QC) samples are reviewed; and samples associated with QC violations are flagged.
 - Visual

2. DELIVERABLES

- All laboratory document deliverables were present as specified in the CLP-Statement of Work (EPA 2001), and/or the project contract.
 - Yes
 - No
- All documentation of field procedures was provided as required.
 - Yes
 - No
- Data entry for documents was accurate and complete.
 - Yes
 - No

3. FIELD PROCEDURES

- Samples were collected from all project-required sites.

Yes - see notes

No

Notes: All site owners were contacted according to the project requirements, however, a sample was not collected at 109 Gail because the well was winterized. An additional sample was collected at 2540 Wylic Drive by special request.

- Field parameters were measured in accordance with the project work plan.

Yes

No

- Field instruments were calibrated daily and before measurements were collected.

Yes

No

- Chains of Custodies (COCs) were properly filled out and signed by the field personnel.

Yes

No

- Data entry into field books, on COCs, and on sample labels were accurate and complete.

Yes

No

4. FIELD BLANKS

Blanks: Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.

Deionized water (DI), trip, rinsate, or any other field blanks have been carried out at the proper frequency (one rinsate blank and one DI blank per event).

Yes

No

Reported results on the field blanks were less than the Project Detection Limit Goals (PDLGs) or reporting limit.

Yes

No – see notes on the following page

Field Blank Notes: Samples associated with blank detections, and with detected results less than five times the blank value were flagged "UJ" to indicate a possible positive bias. However, for this sampling event, the associated results were not less than five times the blank value and therefore, were not qualified for these detections. Following is a summary of field blank detections.

Blank Type	Sample Code	Sample Date	Parameter	PDLG (mg/L)	Result (mg/L)	5 X Result (mg/L)	Flags
Field Blank	HER-0409-304	4/14/09	Bicarbonate	1	2	10	0*
			Total Alkalinity	1	2	10	0*

*Notes: Associated results were greater than five times the blank value.

5. FIELD DUPLICATES

Field duplicates have been collected at the proper frequency (one field duplicate per event).

Yes

No

Field duplicate relative percent differences (RPDs) were within the required control limits (RPD of 20% or less). If the sample or duplicate result is less or equal to five times the PDLG, the RPD criteria are not used. In these cases, the difference between the sample and the duplicate results must be within \pm the PDLG.

Yes

No

6. LABORATORY PROCEDURES

- Laboratory procedures followed

CLP-Statement of Work (EPA 2001)

SW-846 (EPA 1986)

Methods for Chemical Analysis of Water and Wastes (EPA 1983)

- Holding times met

Yes

No

- Consistency with project requirements

Analyses were carried out as required by the project work plan (ASARCO 2002 and 2007).

Yes

No

Project specified methods were used.

- Yes
 No

7. DETECTION LIMITS

- Reporting detection limits met PDLGs.

- Yes
 No

8. LABORATORY BLANKS

Please note that the highest blank value associated with any particular analyte is the blank value used for the flagging process.

- Method blanks were prepared and analyzed at the required frequency (one per batch or one per 20 samples, whichever is greater).

- Yes
 No

- All the analytes in the blank were less than the PDLG.

- Yes
 No

9. LABORATORY MATRIX SPIKES

- A Matrix Spike (MS) sample (pre-digestion) was analyzed at the proper frequency (one per batch and/or matrix).

- Yes
 No – see notes

Notes: Samples from unknown sources were used as the MS for major ions. Therefore, inter-parameter interferences could not be evaluated for these analyses. The accuracy was measured by laboratory control sample (LCS) recoveries.

- MS recoveries were within the required control limits (75-125%).

- Yes
 No

10. LABORATORY DUPLICATES

- Laboratory duplicate samples were analyzed at the proper frequency (one per batch or one per 20 samples, whichever is greater).

- Yes
 No

- RPDs were within the required control limits (RPD of 20% or less). If the sample or duplicate result is less or equal to five times the PDLG, the RPD criteria are not used. In these cases, the difference between the sample and the duplicate results must be within \pm the PDLG.

Yes
 No

11. LABORATORY CONTROL STANDARDS (LCS)

Laboratory Fortified Blanks (LFBs) were used in lieu of LCS' for metal analyses. This is acceptable for the purpose of the project.

- The reference material used for the LCS or LFB was of the correct matrix.

Yes
 No

- LCS' or LFBs were prepared and analyzed at the proper frequency (one per batch or one per 20 samples, whichever is greater).

Yes
 No

- LCS recoveries were within the required control limits (80-120% or certified range).

Yes
 No

12. INTERPARAMETER COMPARISON

Lab pH vs. Field pH
 Lab Specific Conductivity (SC) vs. Field SC
 Total Dissolved Solids (TDS) vs. Field SC

Lab pH vs. Field pH: Field and lab pH pairs were compared using laboratory duplicate criteria (refer to section 10). These comparisons were less than or equal to 19.2 RPD and therefore acceptable for the purposes of the project.

Lab SC vs. Field SC: Field and lab SC pairs were compared using laboratory duplicate criteria (refer to section 10). These comparisons were less than or equal to 1.4 RPD and therefore acceptable for the purposes of the project.

TDS vs. Field SC: The ratio of TDS to field SC results should lie between 0.55 and 0.75. This ratio is intended to be a check on the accuracy of the TDS and lab SC measurements. In natural waters with high sulfate, the ratio may be much higher and the ratio is less accurate in dilute waters. TDS/SC ratios for this sampling event were from 0.66 to 0.71, which were in line with historical data.

13. HISTORICAL COMPARISON SUMMARY

Data for this sampling event were compared with sampling events from the previous five years (since March 2004). For this sampling event, the field SC concentration (482 umhos/cm) for 2540 Wylic Dr was greater than three standard deviations from the historical mean (332 umhos/cm). However, the large standard deviation may be a function of the limited number of historical data points (2) and not indicative of an anomaly or trend.

14. DATA QUALITY OBJECTIVES (DQOs)

- The data quality goal was met for precision (90% of the field and laboratory duplicates were within control limits).

Yes – see the following table
 No

Precision Objectives

QC Type	Total Results	# of Results Out of Control Limits	# of Results Within Control Limits	% Within Control Limits
Field Duplicates	20	0	20	100.0%
Lab Duplicates	28	0	28	100.0%
Overall	48	0	48	100.0%

- The data quality goal was met for accuracy (90% of the LCS and matrix spike results were within control limits).

Yes – see the following table
 No

Accuracy Objectives

QC Type	Total Results	# of Results Out of Control Limits	# of Results Within Control Limits	% Within Control Limits
LCS' and LFBs	24	0	24	100.0%
Matrix Spikes	28	0	28	100.0%
Overall	52	0	52	100.0%

- DQO target for completeness was met (the number of valid results divided by the number of possible results is 90% or above).

Yes – see the table on the following page
 No

Completeness

# of Planned Measurements	Actual # of Measurements	# of Rejected Measurements	# of Valid Measurements	Completeness
112	112	0	112	100.0%

- Samples were qualified for QC exceedances and deficiencies.

 Yes

X No – see the following table

Qualification of Samples

# of Measurements	# of Qualified Measurements	# Not Qualified	% Not Qualified
112	0	112	100.0%

15. CONCLUSION

The data collected in April 2009 for the ASARCO East Helena Post RI/FS Long Term Monitoring Program are deemed acceptable and can be used for the purposes they were intended.

Data Validation Report by: Linda L. Tangen

Client Review by: Jon Nickel

REFERENCES

- ASARCO 2002. *Interim Measures Work Plan Addendum, East Helena Facility.* ASARCO Consulting Inc. Revised May.
- ASARCO 2007. *Post RI/FS Long-Term Monitoring Program.* ASARCO LLC. April.
- EPA 1983. *Methods for Chemical Analysis of Water and Wastes.* United States Environmental Protection Agency. March.
- EPA 1986. *Test Method for Evaluating Solid Waste: Physical/Chemical Methods 3rd Ed. 4 Vols.* United States Environmental Protection Agency. November.
- EPA 2001. *USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis.* United States Environmental Protection Agency. Document Number ILM05.2. December.
- EPA 2002. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* United States Environmental Protection Agency. July.

APPENDIX 1

DATABASE

ANALYSES SUMMARY REPORT

East Helena Private Wells - April 2009

Database: ASARCO, East Helena Plant

Table of Contents by Station Type

<u>Page</u>	<u>Station Type</u>	<u>Station Name</u>
1	Domestic Wells	203Gail
1	Domestic Wells	401Gail
1	Domestic Wells	2540 Wylie
2	Field Quality Control	FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

Run Time: 5/13/2009 11:16:59 AM

C:\EnviroDataDB\Datasets\VS_B_DB\EastHelena.mdb

ANALYSES SUMMARY REPORT

East Helena Private Wells - April 2009

Database: ASARCO, East Helena Plant

Table of Contents By Lab Sample ID

Page	Lab Sample ID	Sample ID	Sample Date	Station Name
1	H09040136-001	EHR-0409-300	4/14/2009	401Gail
1	H09040136-002	EHR-0409-301	4/14/2009	203Gail
1	H09040136-003	EHR-0409-302	4/14/2009	2540 Wylic
1	H09040136-004	EHR-0409-303	4/14/2009	2540 Wylic
2	H09040136-005	EHR-0409-304	4/14/2009	FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

Run Time: 5/13/2009 11:16:59 AM

C:\EnviroDataDB\Datasets\V5_B_DB\EastHelena.mdb

ANALYSES SUMMARY REPORT

East Helena Private Wells - April 2009

Database: ASARCO, East Helena Plant

Table of Contents by Sample ID

Page	Sample ID	Lab Sample ID	Sample Date	Station Name
1	EHR-0409-300	H09040136-001	4/14/2009	401 Gail
1	EHR-0409-301	H09040136-002	4/14/2009	203 Gail
1	EHR-0409-302	H09040136-003	4/14/2009	2540 Wylic
1	EHR-0409-303	H09040136-004	4/14/2009	2540 Wylic
2	EHR-0409-304	H09040136-005	4/14/2009	FieldBlank

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

Run Time: 5/13/2009 11:16:59 AM

C:\EnviroDataDB\Datasets\V5_B_DB\EastHelena.mdb

ANALYSES SUMMARY REPORT

East Helena Private Wells - April 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	203 Gall	2540 Wyke	2540 Wyke	401 Gall
Water	SAMPLE DATE	4/14/2009	4/14/2009	4/14/2009	4/14/2009
	SAMPLE TIME	09:30	09:50	10:20	08:10
	LAB	ELI	ELI	ELI	ELI
	LAB NUMBER	H09040136-002	H09040136-003	H09040136-004	H09040136-001
	SAMPLE NUMBER	EHR-0409-301	EHR-0409-302	EHR-0409-303	EHR-0409-300
	TYPE	Domestic Wells	Domestic Wells	Domestic Wells	Domestic Wells
	GROUP	Private Wells	Private Wells	Private Wells	Private Wells
	DESCRIPTION				
	REMARKS		Field Duplicate		

Common Ions (mg/L): ppm unless noted

Bicarbonate (HCO3)	97	140	140	140
Calcium (Ca) (DIS)	32	59	60	95
Chloride (Cl)	5	7	7	27
Magnesium (Mg) (DIS)	7	13	13	22
Potassium (K) (DIS)	3	5	5	6
Sodium (Na) (DIS)	14	19	19	26
Sulfate (SO4)	54	110	110	220
Total Alkalinity As CACO3	80	120	120	110

Metals (mg/L): ppm unless noted

Antimony (As) (DIS)	<0.002	<0.002	<0.002	0.003
Cadmium (Cd) (DIS)	<0.001	<0.001	<0.001	<0.001
Copper (Cu) (DIS)	0.018	0.002	0.002	0.004
Iron (Fe) (DIS)	<0.02	<0.02	<0.02	0.31
Lead (Pb) (DIS)	<0.005	<0.005	<0.005	<0.005
Manganese (Mn) (DIS)	<0.01	<0.01	<0.01	0.03
Selenium (Se) (DIS)	<0.001	0.003	0.004	0.023
Zinc (Zn) (DIS)	<0.02	0.02	0.02	0.04

Physical/Fid-Lab: ppm unless noted

Oxygen (O) (DIS) (Fid)	7.48	7.37		9.36
pH	7.2	7.2	7.2	7.2
pH (Fid)	6.75	6.8		5.94
SC (umhos/cm at 25 C) (Fid)	288	482		741
SC (umhos/cm at 25 C)	292	484	483	744
Total Suspended Solids	<10	<10	<10	<10
TDS (Measured at 180 C)	194	343	337	529
Water Temperature (C) (Fid)	10.4	9.3		11.3

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

ANALYSES SUMMARY REPORT

East Helena Private Wells - April 2009

Database: ASARCO, East Helena Plant

Sample Matrix	STATION	Field Blank
Water	SAMPLE DATE	4/14/2009
	SAMPLE TIME	11:00
	LAB	ELI
	LAB NUMBER	H09040136-005
	SAMPLE NUMBER	EHR-0409-304
	TYPE	Field QC
	GROUP	Private Wells
	DESCRIPTION	
	REMARKS	Blank

Common Ions (mg/L): ppm unless noted

Bicarbonate (HCO ₃)	2
Calcium (Ca) (DIS)	<1
Chloride (Cl)	<1
Magnesium (Mg) (DIS)	<1
Potassium (K) (DIS)	<1
Sodium (Na) (DIS)	<1
Sulfate (SO ₄)	<1
Total Alkalinity As CACO ₃	2

Metals (mg/L): ppm unless noted

Arsenic (As) (DIS)	<0.002
Cadmium (Cd) (DIS)	<0.001
Copper (Cu) (DIS)	<0.001
Iron (Fe) (DIS)	<0.02
Lead (Pb) (DIS)	<0.005
Manganese (Mn) (DIS)	<0.01
Selenium (Se) (DIS)	<0.001
Zinc (Zn) (DIS)	<0.02

Physical/Fid-Lab: ppm unless noted

pH	5.8
SC (umhos/cm at 25 C)	2
Total Suspended Solids	<10
TDS (Measured at 180 C)	<10

TOT: Total; DIS: Dissolved; TRC: Total Recoverable

NOTE: Table 1 lists data validation flagging descriptions.

APPENDIX 2

FIELD NOTES

APRIL 14, 2009

MONTHLY RATES LONG TERM MONITORING
RESIDENTIAL WELLS

FIELD STANDARDIZATION OF YSI METER

BORROWED FROM HUMMINGBIRD

	STANDARD	METER
PH	4.00 S.C.	4.01 S.C.
	7.00 S.C.	7.00 S.C.
CONDUCTIVITY	1413 μmho/cm	1431 μmho/cm

JENSEN

401 GAIL STREET
EHR-0409-300WATER SAMPLES COLLECTED FROM
OUTSIDE GARDEN SPIGOT AFTER 15, 5 min
BUCKET FILL. DAVID JENSEN PRESS. E.

PH	5.94 S.C.
CONDUCTIVITY	741 μmho/cm
D.O.	9.36 mg/l
TEMP	11.3 °C

FOLEY

203 GAIL STREET
EHR-0409-301WATER SAMPLE COLLECTED FROM
WATER SPIGOT ON NORTH SIDE
OF HOUSE AFTER 5 MINUTE PURGE

PH	6.75 S.C.
CONDUCTIVITY	288 μmho/cm
D.O.	7.48 mg/l
TEMP	10.4 °C

SIMON!

2540 WYLLIE DRIV'

EHR-0409-302 ORIGINAL

EHR-0409-303 DUPLICATE

SAMPLE COLLECTED FROM INSTITUTION SPIGOT
AFTER 5 MINUTE PURGE

PH	6.80 S.C.
CONDUCTIVITY	482 μmho/cm
D.O.	7.37 mg/l
TEMP	9.3 °C

EHR-0409-304 FIELD BLANK

APPENDIX 3
CHAIN OF CUSTODIES

Chain of Custody and Analytical Request Record

PLEASE PRINT - Provide as much information as possible.

Page 1 of 1

Company Name: ASARCO LLC		Project Name, PWS, Permit, Etc. PWS LONG-TERM RESIDENTIAL WELL MONITORING - APRIL 2001		Sample Origin State: MT	EPA/State Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Report Mail Address: JON NICKEL P.O. BOX 1230 EAST HELENA, MT		Contact Name: _____ Phone/Fax: _____ Email: _____		Sampler: (Please Print) J. NICKEL		
Invoice Address: 51035		Invoice Contact & Phone: _____		Purchase Order: _____ Quote/Bottle Order: _____		
Special Report/Formats – ELI must be notified prior to sample submittal for the following:		Number of Containers Sample Type: A/W/S/V/B/O Air Water Soils/Solids Vegetation Bioassay Other	ANALYSIS REQUESTED		Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page	Shipped by: Hand Cooler ID(s): _____
<input type="checkbox"/> DW <input type="checkbox"/> GSA <input type="checkbox"/> POTW/WWTP <input type="checkbox"/> State: _____ <input type="checkbox"/> Other: _____			<input type="checkbox"/> A2LA <input type="checkbox"/> EDD/EDT (Electronic Data) Format: _____ <input type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC			
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	SEE ATTACHED	Normal Turnaround (TAT)	
1 EHR-0401-300 RAW	4/14/01	8:10	GW	X X	X X	
2 EHR-0401-300 METALS		8:10		X		
3 EHR-0401-301 RAW		9:30		X X		
4 EHR-0401-301 METALS		9:30		X		
5 EHR-0401-302 RAW		9:50		X X		
6 EHR-0401-302 METALS		9:50		X		
7 EHR-0401-303 RAW		10:20		X X		
8 EHR-0401-303 METALS		10:20		X		
9 EHR-0401-304 RAW		11:10		X X		
10 EHR-0401-304 METALS		11:10		X		
LABORATORY USE ONLY						
Custody Record MUST be Signed	Relinquished by (print): J. NICKEL	Date/Time: 4/14/01	Signature: J. NICKEL	Received by (print): Stephanie Bell	Date/Time: 4/14/01 13:15	Signature: Stephanie Bell
	Relinquished by (print): _____	Date/Time: _____	Signature: _____	Received by (print): _____	Date/Time: _____	Signature: _____
Sample Disposal: Return to Client: _____			Lab Disposal: _____			Received by Laboratory: _____ Date/Time: _____ Signature: _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly noted on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

APPENDIX 4
LABORATORY REPORT



ENERGY LABORATORIES, INC. • 3161 E Lyndale (59604) • PO Box 5688 • Helena, MT 59601
Toll Free 877.472.0711 • 406.442.0711 • FAX 406.442.0712 • helena@energylab.com

ANALYTICAL SUMMARY REPORT

April 27, 2009

Jon Nickel
Asarco LLC
PO Box 1230
East Helena, MT 59635-

Workorder No.: H09040136 Quote ID: H376 - Monthly Residential Wells

Project Name: RI/FS Long Term Resl Well Monitoring April 2009

Energy Laboratories Inc received the following 5 samples for Asarco LLC on 4/14/2009 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H09040136-001	EHR-0409-300	04/14/09 8:10	04/14/09	Groundwater	Metals by ICP/ICPMS, Dissolved Alkalinity Conductivity Anions by Ion Chromatography pH Solids, Total Dissolved Solids, Total Suspended
H09040136-002	EHR-0409-301	04/14/09 9:30	04/14/09	Groundwater	Same As Above
H09040136-003	EHR-0409-302	04/14/09 9:50	04/14/09	Groundwater	Same As Above
H09040136-004	EHR-0409-303	04/14/09 10:20	04/14/09	Groundwater	Same As Above
H09040136-005	EHR-0409-304	04/14/09 11:00	04/14/09	Groundwater	Same As Above

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT, EPA # MT00005
eli-c - Energy Laboratories, Inc. - Casper, WY, EPA# WY00002
eli-g - Energy Laboratories, Inc. - Gillette, WY, EPA# WY00006
eli-h - Energy Laboratories, Inc. - Helena, MT, EPA# MT00945
eli-r - Energy Laboratories, Inc. - Rapid City, SD, EPA# SD00012
eli-t - Energy Laboratories, Inc. - College Station, TX, EPA# TX01520

SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES, INC. will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories are indicated within the Laboratory Analytical Report.

SAMPLE TEMPERATURE COMPLIANCE: 4°C ($\pm 2^\circ\text{C}$)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

ELI appreciates the opportunity to provide you with this analytical service. For additional information, including certifications, and analytical services visit our web page www.energylab.com.

Jonathan D. Hager

Digitally signed by Jonathan D. Hager
DN cn: Jonathan D Hager, o=Energy Laboratory-
Helena, ou=Assistant Lab Manager,
email=jhager@energylab.com, c=US
Date: 2009-04-28 08:28:50 -06'00'

Report Approved By: _____



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
 Client Sample ID: EHR-0409-300
 Project: RI/FS Long Term Resl Well Monitoring April 2009
 Matrix: Groundwater

Lab ID: H09040136-001
 Collection Date: 04/14/09 08:10
 Date Received: 04/14/09
 Report Date: 04/27/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.2	s.u.		0.1		A4500-H B	04/15/09 10:24 / hm			PH_090415A : 2	090415A-PH-W	
Conductivity	744	umhos/cm		1		A2510 B	04/15/09 10:19 / hm			COND_090415A : 3	090415A-COND-PROBE W	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/15/09 15:45 / hm			SOLIDS_090415A : 5	090415A-SLDS-TSS-W	
Solids, Total Dissolved TDS @ 180 C	529	mg/L		10		A2540 C	04/16/09 09:56 / hm			SOLIDS_090416A : 3	090416A-SLDS-TDS-W	
INORGANICS												
Alkalinity, Total as CaCO3	110	mg/L		1		A2320 B	04/15/09 11:49 / hm			TITTR_090415A : 3	090415A-ALK-W	
Bicarbonate as HCO3	140	mg/L		1		A2320 B	04/15/09 11:49 / hm			TITTR_090415A : 3	090415A-ALK-W	
Chloride	27	mg/L		1		E300.0	04/17/09 16:13 / hm			IC101-H_090417A : 18	R53005	
Sulfate	220	mg/L		1		E300.0	04/17/09 16:13 / hm			IC101-H_090417A : 18	R53005	
METALS, DISSOLVED												
Arsenic	0.003	mg/L		0.002		E200.8	04/17/09 19:46 / eli-b			SUB-B128053 : 2	B_R128053	
Cadmium	ND	mg/L		0.001		E200.8	04/17/09 19:46 / eli-b			SUB-B128053 : 2	B_R128053	
Calcium	95	mg/L		1		E200.7	04/22/09 13:05 / eli-b			SUB-B128250 : 1	B_R128250	
Copper	0.004	mg/L		0.001		E200.8	04/17/09 19:46 / eli-b			SUB-B128053 : 2	B_R128053	
Iron	0.31	mg/L		0.02		E200.7	04/22/09 13:05 / eli-b			SUB-B128250 : 1	B_R128250	
Lead	ND	mg/L		0.005		E200.8	04/17/09 19:46 / eli-b			SUB-B128053 : 2	B_R128053	
Magnesium	22	mg/L		1		E200.7	04/22/09 13:05 / eli-b			SUB-B128250 : 1	B_R128250	
Manganese	0.03	mg/L		0.01		E200.8	04/17/09 19:46 / eli-b			SUB-B128053 : 2	B_R128053	
Potassium	6	mg/L		1		E200.7	04/22/09 13:05 / eli-b			SUB-B128250 : 1	B_R128250	
Selenium	0.023	mg/L		0.001		E200.8	04/17/09 19:46 / eli-b			SUB-B128053 : 2	B_R128053	
Sodium	26	mg/L		1		E200.7	04/22/09 13:05 / eli-b			SUB-B128250 : 1	B_R128250	
Zinc	0.04	mg/L		0.02		E200.8	04/20/09 18:03 / eli-b			SUB-B128115 : 7	B_R128115	

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level

ND - Not detected at the reporting limit.



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0409-301
Project: RI/FS Long Term Resl Well Monitoring April 2009
Matrix: Groundwater

Lab ID: H09040136-002
Collection Date: 04/14/09 09:30
DateReceived: 04/14/09
Report Date: 04/27/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.2	s.u.		0.1		A4500-H B	04/15/09 10:25 / hm			PH_C90415A : 3	090415A-PH-W	
Conductivity	292	umhos/cm		1		A2510 B	04/15/09 10:21 / hm			COND_090415A : 4	090415A-COND-PROBE W	
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/15/09 15:46 / hm			SOLIDs_090415A : 6	090415A-SLDS-TSS-W	
Solids, Total Dissolved TDS @ 180 C	184	mg/L		10		A2540 C	04/16/09 09:57 / hm			SOLIDs_090415A : 4	090415A-SLDS-TDS-W	
INORGANICS												
Alkalinity, Total as CaCO ₃	80	mg/L		1		A2320 B	04/15/09 12:05 / hm			TITTR_090415A : 4	090415A-ALK-W	
Bicarbonate as HCO ₃	97	mg/L		1		A2320 B	04/15/09 12:05 / hm			TITTR_090415A : 4	090415A-ALK-W	
Chloride	5	mg/L		1		E300.0	04/17/09 16:33 / hm			IC101-H_090417A : 19	R53005	
Sulfate	54	mg/L		1		E300.0	04/17/09 16:33 / hm			IC101-H_090417A : 19	R53005	
METALS, DISSOLVED												
Arsenic	ND	mg/L		0.002		E200.8	04/17/09 20:01 / eli-b			SUB-B128053 : 3	B_R128053	
Cadmium	ND	mg/L		0.001		E200.8	04/17/09 20:01 / eli-b			SUB-B128053 : 3	B_R128053	
Calcium	32	mg/L		1		E200.7	04/22/09 13:08 / eli-b			SUB-B128250 : 2	B_R128250	
Copper	0.018	mg/L		0.001		E200.8	04/17/09 20:01 / eli-b			SUB-B128053 : 3	B_R128053	
Iron	ND	mg/L		0.02		E200.7	04/22/09 13:08 / eli-b			SUB-B128250 : 2	B_R128250	
Lead	ND	mg/L		0.005		E200.8	04/17/09 20:01 / eli-b			SUB-B128053 : 3	B_R128053	
Magnesium	7	mg/L		1		E200.7	04/22/09 13:08 / eli-b			SUB-B128250 : 2	B_R128250	
Manganese	ND	mg/L		0.01		E200.8	04/17/09 20:01 / eli-b			SUB-B128053 : 3	B_R128053	
Potassium	3	mg/L		1		E200.7	04/22/09 13:08 / eli-b			SUB-B128250 : 2	B_R128250	
Selenium	ND	mg/L		0.001		E200.8	04/20/09 18:34 / eli-b			SUB-B128115 : 8	B_R128115	
Sodium	14	mg/L		1		E200.7	04/22/09 13:08 / eli-b			SUB-B128250 : 2	B_R128250	
Zinc	ND	mg/L		0.02		E200.8	04/20/09 18:34 / eli-b			SUB-B128115 : 8	B_R128115	

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0409-302
Project: RI/FS Long Term Resl Well Monitoring April 2009
Matrix: Groundwater

Lab ID: H09040136-003
Collection Date: 04/14/09 09:50
Date Received: 04/14/09
Report Date: 04/27/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.2	s.u.		0.1		A4500-H B	04/15/09 10:27 / hm			PH_090415A : 4		090415A-PH-W
Conductivity	484	umhos/cm		1		A2510 B	04/15/09 10:23 / hm			COND_090415A : 5		090415A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/15/09 15:46 / hm			SOLIDS_090415A : 7		090415A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	343	mg/L		10		A2540 C	04/16/09 10:08 / hm			SOLIDS_090416A : 7		090416A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO ₃	120	mg/L		1		A2320 B	04/15/09 15:12 / hm			TITTR_090415A : 7		090415A-ALK-W
Bicarbonate as HCO ₃	140	mg/L		1		A2320 B	04/15/09 15:12 / hm			TITTR_090415A : 7		090415A-ALK-W
Chloride	7	mg/L		1		E300.0	04/17/09 17:31 / hm			IC101-H_090417A : 22		R53005
Sulfate	110	mg/L		1		E300.0	04/17/09 17:31 / hm			IC101-H_090417A : 22		R53005
METALS, DISSOLVED												
Arsenic	ND	mg/L		0.002		E200.8	04/17/09 20:21 / eli-b			SUB-B128053 : 4		B_R128053
Cadmium	ND	mg/L		0.001		E200.8	04/17/09 20:21 / eli-b			SUB-B128053 : 4		B_R128053
Calcium	59	mg/L		1		E200.7	04/22/09 13:12 / eli-b			SUB-B128250 : 3		B_R128250
Copper	0.002	mg/L		0.001		E200.8	04/17/09 20:21 / eli-b			SUB-B128053 : 4		B_R128053
Iron	ND	mg/L		0.02		E200.7	04/22/09 13:12 / eli-b			SUB-B128250 : 3		B_R128250
Lead	ND	mg/L		0.005		E200.8	04/17/09 20:21 / eli-b			SUB-B128053 : 4		B_R128053
Magnesium	13	mg/L		1		E200.7	04/22/09 13:12 / eli-b			SUB-B128250 : 3		B_R128250
Manganese	ND	mg/L		0.01		E200.8	04/17/09 20:21 / eli-b			SUB-B128053 : 4		B_R128053
Potassium	5	mg/L		1		E200.7	04/22/09 13:12 / eli-b			SUB-B128250 : 3		B_R128250
Selenium	0.003	mg/L		0.001		E200.8	04/17/09 20:21 / eli-b			SUB-B128053 : 4		B_R128053
Sodium	19	mg/L		1		E200.7	04/22/09 13:12 / eli-b			SUB-B128250 : 3		B_R128250
Zinc	0.02	mg/L		0.02		E200.8	04/20/09 18:38 / eli-b			SUB-B128115 : 9		B_R128115

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
 Client Sample ID: EHR-0409-303
 Project: RI/FS Long Term Resl Well Monitoring April 2009
 Matrix: Groundwater

Lab ID: H09040136-004
 Collection Date: 04/14/09 10:20
 Date Received: 04/14/09
 Report Date: 04/27/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	7.2	s.u.		0.1		A4500-H B	04/15/09 10:31 / hm			PH_090415A	6	C90415A-PH-W
Conductivity	483	umhos/cm		1		A2510 B	04/15/09 10:25 / hm			COND_090415A	7	090415A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/15/09 15:47 / hm			SOLIDS_090415A	8	090415A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	337	mg/L		10		A2540 C	04/16/09 10:08 / hm			SOLIDS_090416A	8	090416A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO ₃	120	mg/L		1		A2320 B	04/15/09 14:47 / hm			TITTR_090415A	8	090415A-ALK-W
Bicarbonate as HCO ₃	140	mg/L		1		A2320 B	04/15/09 14:47 / hm			TITTR_090415A	8	090415A-ALK-W
Chloride	7	mg/L		1		E300.0	04/17/09 17:50 / hm			IC101-H_090417A	23	R53005
Sulfate	110	mg/L		1		E300.0	04/17/09 17:50 / hm			IC101-H_090417A	23	R53005
METALS, DISSOLVED												
Arsenic	ND	mg/L		0.002		E200.8	04/17/09 20:25 / eli-b			SUB-B128053	5	B_R128053
Cadmium	ND	mg/L		0.001		E200.8	04/17/09 20:25 / eli-b			SUB-B128053	5	B_R128053
Calcium	60	mg/L		1		E200.7	04/22/09 13:16 / eli-b			SUB-B128250	4	B_R128250
Copper	0.002	mg/L		0.001		E200.8	04/17/09 20:25 / eli-b			SUB-B128053	5	B_R128053
Iron	ND	mg/L		0.02		E200.7	04/22/09 13:16 / eli-b			SUB-B128250	4	B_R128250
Lead	ND	mg/L		0.005		E200.8	04/17/09 20:25 / eli-b			SUB-B128053	5	B_R128053
Magnesium	13	mg/L		1		E200.7	04/22/09 13:16 / eli-b			SUB-B128250	4	B_R128250
Manganese	ND	mg/L		0.01		E200.8	04/17/09 20:25 / eli-b			SUB-B128053	5	B_R128053
Potassium	5	mg/L		1		E200.7	04/22/09 13:16 / eli-b			SUB-B128250	4	B_R128250
Selenium	0.004	mg/L		0.001		E200.8	04/17/09 20:25 / eli-b			SUB-B128053	5	B_R128053
Sodium	19	mg/L		1		E200.7	04/22/09 13:16 / eli-b			SUB-B128250	4	B_R128250
Zinc	0.02	mg/L		0.02		E200.8	04/20/09 18:42 / eli-b			SUB-B128115	10	B_R128115

Report RL - Analyte reporting limit.
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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0409-304
Project: RI/FS Long Term Resl Well Monitoring April 2009
Matrix: Groundwater

Lab ID: H09040136-005
Collection Date: 04/14/09 11:00
Date Received: 04/14/09
Report Date: 04/27/09

Analyses	Result	Units	QUAL	RL	MCL	Method	Analysis Date / By	Prep Date	Prep Method	RunID	Run Order	BatchID
PHYSICAL PROPERTIES												
pH	5.8	s.u.		0.1		A4500-H B	04/15/09 10:33 / hm			PH_090415A : 7		090415A-PH-W
Conductivity	2	umhos/cm		1		A2510 B	04/15/09 10:27 / hm			COND_090415A : 8		090415A-COND-PROBE W
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	04/15/09 15:47 / hm			SOLID_090415A : 9		090415A-SLDS-TSS-W
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	04/15/09 10:09 / hm			SOLID_090416A : 8		090416A-SLDS-TDS-W
INORGANICS												
Alkalinity, Total as CaCO ₃	2	mg/L		1		A2320 B	04/15/09 15:16 / hm			TITTR_090415A : 10		090415A-ALK-W
Bicarbonate as HCO ₃	2	mg/L		1		A2320 B	04/15/09 15:16 / hm			TITTR_090415A : 10		090415A-ALK-W
Chloride	ND	mg/L		1		E300.0	04/17/09 18:10 / hm			IC101-H_090417A : 24		RS3005
Sulfate	ND	mg/L		1		E300.0	04/17/09 18:10 / hm			IC101-H_090417A : 24		RS3005
METALS, DISSOLVED												
Arsenic	ND	mg/L		0.002		E200.8	04/17/09 20:28 / eli-b			SUB-B128053 : 6		B_R128053
Cadmium	ND	mg/L		0.001		E200.6	04/17/09 20:28 / eli-b			SUB-B128053 : 6		B_R128053
Calcium	ND	mg/L		1		E200.7	04/22/09 13:20 / eli-b			SUB-B128250 : 5		B_R128250
Copper	ND	mg/L		0.001		E200.8	04/20/09 18:46 / eli-b			SUB-B128115 : 11		B_R128115
Iron	ND	mg/L		0.02		E200.7	04/22/09 13:20 / eli-b			SUB-B128250 : 5		B_R128250
Lead	ND	mg/L		0.005		E200.8	04/17/09 20:28 / eli-b			SUB-B128053 : 6		B_R128053
Magnesium	ND	mg/L		1		E200.7	04/22/09 13:20 / eli-b			SUB-B128250 : 5		B_R128250
Manganese	ND	mg/L		0.01		E200.8	04/20/09 18:46 / eli-b			SUB-B128115 : 11		B_R128115
Potassium	ND	mg/L		1		E200.7	04/22/09 13:20 / eli-b			SUB-B128250 : 5		B_R128250
Selenium	ND	mg/L		0.001		E200.8	04/17/09 20:28 / eli-b			SUB-B128053 : 6		B_R128053
Sodium	ND	mg/L		1		E200.7	04/22/09 13:20 / eli-b			SUB-B128250 : 5		B_R128250
Zinc	ND	mg/L		0.02		E200.8	04/20/09 18:46 / eli-b			SUB-B128115 : 11		B_R128115

Report RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

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Client: Asarco LLC

ANALYTICAL QC SUMMARY REPORT

Date: 27-Apr-09

Work Order: H09040136

BatchID: 090415A-ALK-W

Project: RI/FS Long Term Resl Well Monitoring April

Run ID : Run Order: TITTR_090415A: 1 SampType: Method Blank Sample ID MBLK1_090415A Method: A2320 B

Analysis Date: 04/15/09 11:28 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Alkalinity, Total as CaCO₃ ND 1

Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Run ID : Run Order: TITTR_090415A: 2 SampType: Laboratory Control Sample Sample ID: LCS1_090415A Method: A2320 B

Analysis Date: 04/15/09 11:38 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Alkalinity, Total as CaCO₃ 590 4.0 600 99 90 110

Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Run ID : Run Order: TITTR_090415A: 5 SampType: Sample Matrix Spike Sample ID: H09040136-002AMS Method: A2320 B

Analysis Date: 04/15/09 12:10 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Alkalinity, Total as CaCO₃ 650 4.0 600 79.84 95 90 110

Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Run ID : Run Order: TITTR_090415A: 6 SampType: Sample Matrix Spike Duplicate Sample ID: H09040136-002AMSD Method: A2320 B

Analysis Date: 04/15/09 13:41 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Alkalinity, Total as CaCO₃ 650 4.0 600 79.84 94 90 110 649.7 0.5 20

Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Run ID : Run Order: TITTR_090415A: 9 SampType: Sample Duplicate Sample ID: H09040136-004ADUP Method: A2320 B

Analysis Date: 04/15/09 14:55 Units: mg/L Prep Info: Prep Date: Prep Method:

Analytes	2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Alkalinity, Total as CaCO₃ 120 4.0 118.8 1.7 20

Bicarbonate as HCO₃ 150 4.0 144.9 1.7 20

Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount



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Client: Asarco LLC

ANALYTICAL QC SUMMARY REPORT

Date: 27-Apr-09

Work Order: H09040136

BatchID: 090415A-COND-PROBE

Project: RI/FS Long Term Resl Well Monitoring April

Run ID : Run Order:	COND_090415A: 1	SampType: Laboratory Control Sample				Sample ID: LCS1_090415A				Method: A2510 B		
Analysis Date:	04/15/09 10:17	Units: umhos/cm			Prep Info: Prep Date:				Prep Method:			
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		1410	1.0	1412		100	90	110				

Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Run ID : Run Order:	COND_090415A: 6	SampType: Sample Duplicate				Sample ID: H09040136-003ADUP				Method: A2510 B		
Analysis Date:	04/15/09 10:24	Units: umhos/cm			Prep Info: Prep Date:				Prep Method:			
Analytes	1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity		485	1.0						484	0.3	10	

Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount



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Client: Asarco LLC

ANALYTICAL QC SUMMARY REPORT

Date: 27-Apr-09

Work Order: H09040136

BatchID: 090415A-PH-W

Project: RI/FS Long Term Resl Well Monitoring April

Run ID :Run Order: PH_090415A: 1	SampType: Laboratory Control Sample				Sample ID: LCS1_090415A				Method: A4500-H B			
Analysis Date: 04/15/09 10:20	Units: s.u.					Prep Info: Prep Date				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
pH	7.03	0.10	7		100	99	101					

Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Run ID :Run Order: PH_090415A: 5	SampType: Sample Duplicate				Sample ID: H09040136-003ADUP				Method: A4500-H B			
Analysis Date: 04/15/09 10:29	Units: s.u.					Prep Info: Prep Date:				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
pH	7.24	0.10							7.21	0.4	2	

Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount



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Client: Asarco LLC

ANALYTICAL QC SUMMARY REPORT

Date: 27-Apr-09

Work Order: H09040136

BatchID: 090415A-SLDS-TSS-W

Project: RI/FS Long Term Resl Well Monitoring April

Run ID :Run Order: SOLIDS_090415A: 1	SampType: Method Blank				Sample ID: MBLK1_090415A				Method: A2540 D		
Analysis Date: 04/15/09 15:44	Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	1									
Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A											
Run ID :Run Order: SOLIDS_090415A: 2	SampType: Laboratory Control Sample				Sample ID: LCS1_090415A				Method: A2540 D		
Analysis Date: 04/15/09 15:44	Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	2050	10	2000		102	70	130				
Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A											
Run ID :Run Order: SOLIDS_090415A: 12	SampType: Sample Duplicate				Sample ID: H09040143-001ADUP				Method: A2540 D		
Analysis Date: 04/15/09 15:48	Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	60.0	10							56	6.9	10
Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A											

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount



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Client: Asarco LLC

ANALYTICAL QC SUMMARY REPORT

Date: 27-Apr-09

Work Order: H09040136

BatchID: 090416A-SLDS-TDS-W

Project: RI/FS Long Term Resl Well Monitoring April

Run ID :Run Order: SOLIDS_090416A: 1		SampType: Method Blank				Sample ID: MBLK1_090416A				Method: A2540 C		
Analysis Date 04/16/09 09:54		Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C		3		1.0								
Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A												
Run ID :Run Order: SOLIDS_090416A: 2		SampType: Laboratory Control Sample				Sample ID: LCS1_090416A				Method: A2540 C		
Analysis Date: 04/16/09 09:55		Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C		989	10	1000	3	99	90	110				
Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A												
Run ID :Run Order: SOLIDS_090416A: 5		SampType: Sample Matrix Spike				Sample ID: H09040136-002AMS				Method: A2540 C		
Analysis Date: 04/16/09 09:57		Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C		2240	10	2000	194	102	80	120				
Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A												
Run ID :Run Order: SOLIDS_090416A: 6		SampType: Sample Matrix Spike Duplicate				Sample ID: H09040136-002AMSD				Method: A2540 C		
Analysis Date: 04/16/09 09:58		Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes 1		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Dissolved TDS @ 180 C		2240	10	2000	194	102	80	120	2242	0.1	10	
Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A												

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount



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Client: Asarco LLC

ANALYTICAL QC SUMMARY REPORT

Date: 27-Apr-09

Work Order: H09040136

BatchID: B_R128053

Project: RI/FS Long Term Resl Well Monitoring April

Run ID :Run Order: SUB-B128053: 7		SampType: Method Blank				Sample ID: LRB				Method: E200.8		
Analysis Date: 04/17/09 13:02		Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic	ND	4E-05										
Cadmium	ND	9E-06										
Copper	ND	7E-05										
Lead	ND	8E-06										
Manganese	0.0002	5E-05										
Selenium	ND	0.0001										

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Run ID :Run Order: SUB-B128053: 8		SampType: Laboratory Fortified Blank				Sample ID: LFB				Method: E200.8		
Analysis Date: 04/17/09 13:06		Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic	0.049	0.0050	0.05		99	85	115					
Cadmium	0.052	0.0010	0.05		103	85	115					
Copper	0.051	0.010	0.05		102	85	115					
Lead	0.051	0.010	0.05		102	85	115					
Manganese	0.050	0.010	0.05	0.00024	100	85	115					
Selenium	0.051	0.0050	0.05		102	85	115					

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Run ID :Run Order: SUB-B128053: 9		SampType: Initial Calibration Verification Standard				Sample ID: QCS - 081021A,081125A,080225 B				Method: E200.8		
Analysis Date: 04/17/09 15:26		Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic	0.050	0.0050	0.05		101	90	110					
Cadmium	0.025	0.0010	0.025		101	90	110					
Copper	0.052	0.010	0.05		104	90	110					
Lead	0.051	0.010	0.05		102	90	110					
Manganese	0.25	0.010	0.25		99	90	110					
Selenium	0.051	0.0050	0.05		103	90	110					

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than three times the spike amount



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Client: Asarco LLC

ANALYTICAL QC SUMMARY REPORT

Date: 27-Apr-09

Work Order: H09040136

BatchID: B_R128053

Project: RI/FS Long Term Resl Well Monitoring April

Run ID :Run Order: SUB-B128053: 10

SampType: Sample Matrix Spike

Sample ID: H09040136-001B

Method: E200.8

Analysis Date: 04/17/09 19:50

Units: mg/L

Prep Info:

Prep Date:

Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.263	0.0050	0.25	0.003	104	70	130				
Cadmium	0.260	0.0010	0.25		104	70	130				
Copper	0.270	0.010	0.25	0.00405	106	70	130				
Lead	0.261	0.010	0.25	0.0001	105	70	130				
Manganese	0.288	0.010	0.25	0.0273	104	70	130				
Selenium	0.280	0.0050	0.25	0.0234	103	70	130				

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Run ID :Run Order: SUB-B128053: 11

SampType: Sample Matrix Spike Duplicate

Sample ID: H09040136-001B

Method: E200.8

Analysis Date: 04/17/09 19:53

Units: mg/L

Prep Info:

Prep Date:

Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.263	0.0050	0.25	0.003	104	70	130	0.2635	0.2	20	
Cadmium	0.259	0.0010	0.25		104	70	130	0.26	0.3	20	
Copper	0.267	0.010	0.25	0.00405	105	70	130	0.2697	1	20	
Lead	0.263	0.010	0.25	0.0001	105	70	130	0.2615	0.5	20	
Manganese	0.289	0.010	0.25	0.0273	105	70	130	0.2877	0.6	20	
Selenium	0.281	0.0050	0.25	0.0234	103	70	130	0.2804	0.1	20	

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount



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Client: Asarco LLC

ANALYTICAL QC SUMMARY REPORT

Date: 27-Apr-09

Work Order: H09040136

BatchID: B_R128115

Project: RI/FS Long Term Resl Well Monitoring April

Run ID : Run Order: SUB-B128115: 5		SampType: Sample Matrix Spike				Sample ID: B09041679-004BMS				Method: E200.8		
Analysis Date: 04/20/09 19:32		Units: mg/L		Prep Info: Prep Date:				Prep Method:				
Analytes	4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium		0.051	0.0050	0.05	0.00016	102	70	130				
Zinc		0.087	0.010	0.05	0.03612	102	70	130				

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Run ID : Run Order: SUB-B128115: 6		SampType: Sample Matrix Spike Duplicate				Sample ID: B09041679-004BMSD				Method: E200.8		
Analysis Date: 04/20/09 19:36		Units: mg/L		Prep Info: Prep Date:				Prep Method:				
Analytes	4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		0.056	0.010	0.05	0.00705	97	70	130	0.05486	1.3	20	
Manganese		0.052	0.010	0.05	0.0036	98	70	130	0.05161	1.5	20	
Selenium		0.052	0.0050	0.05	0.00016	103	70	130	0.05105	1.5	20	
Zinc		0.086	0.010	0.05	0.03612	100	70	130	0.08703	1.3	20	

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Run ID : Run Order: SUB-B128116: 12		SampType: Sample Matrix Spike				Sample ID: H09040136-001B				Method: E200.8		
Analysis Date: 04/20/09 18:07		Units: mg/L		Prep Info: Prep Date:				Prep Method:				
Analytes	4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		0.247	0.010	0.25	0.00285	97	70	130				
Manganese		0.279	0.010	0.25	0.03205	99	70	130				
Selenium		0.285	0.0050	0.25	0.02655	103	70	130				
Zinc		0.288	0.010	0.25	0.03605	101	70	130				

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Run ID : Run Order: SUB-B128115: 13		SampType: Sample Matrix Spike Duplicate				Sample ID: H09040136-001B				Method: E200.8		
Analysis Date: 04/20/09 18:11		Units: mg/L		Prep Info: Prep Date:				Prep Method:				
Analytes	4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		0.232	0.010	0.25	0.00285	92	70	130	0.2465	6.1	20	
Manganese		0.262	0.010	0.25	0.03205	92	70	130	0.2792	6.3	20	
Selenium		0.269	0.0050	0.25	0.02655	97	70	130	0.285	5.6	20	
Zinc		0.271	0.010	0.25	0.03605	94	70	130	0.288	6	20	

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount



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Client: Asarco LLC

ANALYTICAL QC SUMMARY REPORT

Date: 27-Apr-09

Work Order: H09040136

BatchID: B_R128115

Project: RI/FS Long Term Resl Well Monitoring April

Run ID :Run Order: SUB-B128115: 2		SampType: Initial Calibration Verification Standard				Sample ID: QCS - 081021A,081125A,080225				Method: E200.8		
						B						
Analysis Date: 04/20/09 16:15		Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes	4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		0.051	0.010	0.05		101	90	110				
Manganese		0.25	0.010	0.25		99	90	110				
Selenium		0.052	0.0050	0.05		103	90	110				
Zinc		0.052	0.010	0.05		104	90	110				

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Run ID :Run Order: SUB-B128115: 3		SampType: Method Blank				Sample ID: LRB				Method: E200.8		
Analysis Date: 04/20/09 17:10		Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes	4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		ND	7E-05									
Manganese		ND	5E-05									
Selenium		ND	0.0001									
Zinc		0.0008	3E-05									

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Run ID :Run Order: SUB-B128115: 4		SampType: Laboratory Fortified Blank				Sample ID: LFB				Method: E200.8		
Analysis Date: 04/20/09 17:14		Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes	4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		0.050	0.010	0.05		101	85	115				
Manganese		0.051	0.010	0.05		103	85	115				
Selenium		0.051	0.0050	0.05		101	85	115				
Zinc		0.051	0.010	0.05	0.0008	101	85	115				

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Run ID :Run Order: SUB-B128115: 5		SampType: Sample Matrix Spike				Sample ID: B09041679-004BMS				Method: E200.8		
Analysis Date: 04/20/09 19:32		Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes	4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		0.055	0.010	0.05	0.00705	96	70	130				
Manganese		0.052	0.010	0.05	0.0036	96	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount



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Client: Asarco LLC

ANALYTICAL QC SUMMARY REPORT

Date: 27-Apr-09

Work Order: H09040136

BatchID: B_R128250

Project: RI/FS Long Term Resl Well Monitoring April

Run ID : Run Order: SUB-B128250: 6		SampType: Continuing Calibration Verification Standard Sample ID: ICV						Method: E200.7				
Analysis Date: 04/22/09 09:24		Units: mg/L		Prep Info:			Prep Date		Prep Method:			
Analytes	5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium		24.6	1.0	25		98	95	105				
Iron		2.58	0.030	2.5		103	95	105				
Magnesium		25.4	1.0	25		102	95	105				
Potassium		26.1	1.0	25		104	95	105				
Sodium		25.7	1.0	25		103	95	105				

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Run ID : Run Order: SUB-B128250: 7		SampType: Method Blank						Sample ID: MB-TJADIS090422A			Method: E200.7		
Analysis Date: 04/22/09 09:51		Units: mg/L		Prep Info:			Prep Date		Prep Method:				
Analytes	5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Calcium		ND	0.06										
Iron		0.005	0.004										
Magnesium		ND	0.6										
Potassium		ND	0.05										
Sodium		ND	0.03										

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Run ID : Run Order: SUB-B128250: 8		SampType: Laboratory Fortified Blank						Sample ID: LFB-TJADIS090422A			Method: E200.7		
Analysis Date: 04/22/09 09:55		Units: mg/L		Prep Info:			Prep Date		Prep Method:				
Analytes	5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Calcium		50.8	1.0	50		102	85	115					
Iron		5.18	0.030	5	0.00526	104	85	115					
Magnesium		50.7	1.0	50		101	85	115					
Potassium		50.0	1.0	50		100	85	115					
Sodium		50.4	1.0	50		101	85	115					

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Run ID : Run Order: SUB-B128250: 9		SampType: Sample Matrix Spike						Sample ID: B09040881-022BMS2			Method: E200.7		
Analysis Date: 04/22/09 12:58		Units: mg/L		Prep Info:			Prep Date		Prep Method:				
Analytes	5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Calcium		902	3.1	500	416	97	70	130					

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount



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Client: Asarco LLC

ANALYTICAL QC SUMMARY REPORT

Date: 27-Apr-09

Work Order: H09040136

BatchID: B_R128250

Project: RI/FS Long Term Resl Well Monitoring April

Run ID : Run Order: SUB-B128250: 9		SampType: Sample Matrix Spike				Sample ID: B09040881-022BMS2				Method: E200.7		
Analysis Date: 04/22/09 12:58		Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes	5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron		51.1	0.041	50	1.541	99	70	130				
Magnesium		1150	6.3	500	635.9	103	70	130				
Potassium		546	1.0	500	43.6	101	70	130				
Sodium		900	4.1	500	388.6	102	70	130				

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Run ID : Run Order: SUB-B128250: 10		SampType: Sample Matrix Spike Duplicate				Sample ID: B09040881-022BMSD2				Method: E200.7		
Analysis Date: 04/22/09 13:01		Units: mg/L				Prep Info: Prep Date:				Prep Method:		
Analytes	5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium		904	3.1	500	416	98	70	130	902.5	0.2	20	
Iron		52.5	0.041	50	1.541	102	70	130	51.08	2.7	20	
Magnesium		1150	6.3	500	635.9	104	70	130	1152	0.1	20	
Potassium		564	1.0	500	43.6	104	70	130	546.3	3.2	20	
Sodium		917	4.1	500	388.6	106	70	130	900	1.9	20	

Associated samples: H09040136-001B; H09040136-002B; H09040136-003B; H09040136-004B; H09040136-005B

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

A - Analyte concentration greater than three times the spike amount



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Client: Asarco LLC

ANALYTICAL QC SUMMARY REPORT

Date: 27-Apr-09

Work Order: H09040136

BatchID: R53005

Project: RI/FS Long Term Resl Well Monitoring April

Run ID :Run Order: IC101-H_090417A: 12 SampType: Continuing Calibration Verification Standard Sample ID: CCV Method: E300.0

Analysis Date: 04/17/09 14:17 Units: mg/L Prep Info: Prep Date Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	24	1.0	25		95	90	110				
Sulfate	49	1.0	50		99	90	110				

Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Run ID :Run Order: IC101-H_090417A: 13 SampType: Initial Calibration Verification Standard Sample ID: ICV Method: E300.0

Analysis Date: 04/17/09 14:36 Units: mg/L Prep Info: Prep Date Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	2.3	1.0	2.5		90	90	110				
Sulfate	9.4	1.0	10		94	90	110				

Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Run ID :Run Order: IC101-H_090417A: 14 SampType: Laboratory Control Sample Sample ID: LCS Method: E300.0

Analysis Date: 04/17/09 14:58 Units: mg/L Prep Info: Prep Date Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	87	1.0	87.47		100	90	110				
Sulfate	27	1.0	28.53	0.331	94	90	110				

Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Run ID :Run Order: IC101-H_090417A: 15 SampType: Laboratory Fortified Blank Sample ID: LFB Method: E300.0

Analysis Date: 04/17/09 15:15 Units: mg/L Prep Info: Prep Date Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	4.6	1.0	5		91	90	110				
Sulfate	9.5	1.0	10	0.331	91	90	110				

Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Run ID :Run Order: IC101-H_090417A: 16 SampType: Method Blank Sample ID: MBLK Method: E300.0

Analysis Date: 04/17/09 15:35 Units: mg/L Prep Info: Prep Date Prep Method:

Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Chloride	ND	0.05									
Sulfate	0.3	0.1									

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits N - Analyte concentration was not sufficiently high to calculate RPD

J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits A - Analyte concentration greater than three times the spike amount



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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

Client: Asarco LLC

ANALYTICAL QC SUMMARY REPORT

Date: 27-Apr-09

Work Order: H09040136

BatchID: R53005

Project: RI/FS Long Term Resl Well Monitoring April

Run ID : Run Order	IC101-H_090417A: 16	SampType:	Method Blank	Sample ID:	MBLK	Method:	E300.0
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Analysis Date:	04/17/09 15:35	Units:	mg/L	Prep Info:	Prep Date	Prep Method:	
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Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
----------	--------	-----	-----------	-------------	------	----------	-----------	-------------	------	----------	------

Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Run ID : Run Order:	IC101-H_090417A: 20	SampType:	Sample Matrix Spike	Sample ID:	H09040136-002A MS	Method:	E300.0
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Analysis Date:	04/17/09 16:52	Units:	mg/L	Prep Info:	Prep Date	Prep Method:	
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Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
----------	--------	-----	-----------	-------------	------	----------	-----------	-------------	------	----------	------

Chloride	16	1.0	12.5	4.516	93	90	110				
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Sulfate	80	1.0	25	53.52	104	90	110				
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Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Run ID : Run Order:	IC101-H_090417A: 21	SampType:	Sample Matrix Spike Duplicate	Sample ID:	H09040136-002A MSD	Method:	E300.0
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Analysis Date:	04/17/09 17:12	Units:	mg/L	Prep Info:	Prep Date	Prep Method:	
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Analytes	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
----------	--------	-----	-----------	-------------	------	----------	-----------	-------------	------	----------	------

Chloride	16	1.0	12.5	4.516	91	90	110	16.11	1.4	20	
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Sulfate	79	1.0	25	53.52	102	90	110	79.63	0.9	20	
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Associated samples: H09040136-001A; H09040136-002A; H09040136-003A; H09040136-004A; H09040136-005A

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

N - Analyte concentration was not sufficiently high to calculate RPD

A - Analyte concentration greater than three times the spike amount

Energy Laboratories Inc

Workorder Receipt Checklist



Asarco LLC

H09040136

Login completed by: Roxanne L. Tubbs

Date and Time Received: 4/14/2009 1:15 PM

Reviewed by: BL2000\abblackbum

Received by: sld

Reviewed Date: 4/16/2009 1:38:52 PM

Carrier name: Hand Del

Shipping container/coolier in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/coolier?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	6.1°C		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Contact and Corrective Action Comments:

None

**FEBRUARY 2009 QUARTERLY MONITORING
DATA SUBMITTAL**

ASARCO EAST HELENA CAMU MONITORING WELLS

Prepared for:
ASARCO LLC
P.O. Box 1230
East Helena, MT 59635

Prepared by:
Hydrometrics, Inc.
3020 Bozeman Avenue
Helena, MT 59601

May 2009

**FEBRUARY 2009 QUARTERLY MONITORING
DATA SUBMITTAL
ASARCO EAST HELENA CAMU MONITORING WELLS**

Prepared for:
ASARCO LLC
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Helena, MT 59601

May 2009

FEBRUARY 2009 QUARTERLY MONITORING DATA SUBMITTAL
ASARCO EAST HELENA CAMU MONITORING WELLS

This data submittal presents the groundwater quality and water level data collected during the February 2009 (1st quarter) monitoring event for the Asarco East Helena CAMU monitoring well network. As described in the CAMU Groundwater Sampling and Monitoring Plan (SMP) and the 2008 Groundwater Monitoring Report (GMR) submitted to EPA in March 2009, the CAMU well network consists of eleven monitoring wells designated MW-1 through MW-11, sampled on a quarterly basis. To evaluate potential groundwater impacts from the CAMU, water quality results are compared with well-specific concentration limits for dissolved metals, and tests for statistically significant data trends are conducted using the Mann-Kendall test for trend.

In accordance with the SMP, the summary tables, graphs, and statistical tests required for the CAMU groundwater data have been updated to include the February 2009 monitoring data. The February 2009 data submittal consists of the following items (attached):

1. February 2009 summary data table;
2. Time-concentration plots through February 2009;
3. February 2009 potentiometric map;
4. February 2009 dissolved arsenic concentration map;
5. February 2009 dissolved manganese concentration map;
6. Mann-Kendall trend test results table; and
7. Seasonal Mann-Kendall trend test results table.

February 2009 groundwater quality and water levels in the CAMU monitoring wells were consistent with previous results. The only statistically significant trend noted was a decreasing trend for dissolved manganese at well MW-2, identical to the statistical results reported in the 2008 GMR. One dissolved metals value (0.02 mg/L vanadium at well MW-7) exceeded the associated concentration limit, which is set at the reporting limit of 0.01 mg/L. No other dissolved metals exceeded concentration limits (concentration limits are presented in Table 5-1 of the 2008 GMR). All concentrations of silver, barium, beryllium, cadmium, chromium, cobalt, copper, mercury, nickel, lead, antimony, thallium, and zinc were below reporting limits.

FEBRUARY 2009 SUMMARY DATA TABLE
ASARCO EAST HELENA CAMU MONITORING WELLS

February 2009 Asarco East Helena CAMU Groundwater Data

Site	Sample Date	Sample ID	Type	Lab ID	Depth To Water (ft)	Field Parameters			
						pH (s.u.)	SC ($\mu\text{mhos}/\text{cm}$)	Dissolved O ₂	Water Temp (°C)
MW-1	2/6/2009	AEH-0902-153		H09020067-004	50.67	7.13	435	7.12	10
MW-1	2/6/2009	AEH-0902-154	Field Duplicate	H09020067-005					
MW-2	2/6/2009	AEH-0902-160		H09020067-011	34.44	6.75	490	0.69	9.9
MW-3	2/6/2009	AEH-0902-161		H09020067-012	30.03	6.68	611	0.51	9.7
MW-4	2/6/2009	AEH-0902-151		H09020067-002	45.37	7.11	494	7.61	9.8
MW-5	2/6/2009	AEH-0902-157		H09020067-008	51.99	7.41	341	7.52	9.8
MW-6	2/9/2009	AEH-0902-163		H09020078-002	26.12	6.8	772	1.54	9.9
MW-7	2/6/2009	AEH-0902-150		H09020067-001	57.1	7.35	216	6.92	9.7
MW-8	2/6/2009	AEH-0902-158		H09020067-009	50.68	7.06	458	6.28	10.1
MW-9	2/6/2009	AEH-0902-156		H09020067-007	55.95	7.17	423	6.99	9.9
MW-10	2/6/2009	AEH-0902-159		H09020067-010	38.21	6.99	777	4.47	9.8
MW-11	2/9/2009	AEH-0902-162		H09020078-001	62.18	7.07	650	8.93	10.2
DI BLANK	2/6/2009	AEH-0902-152	Blank	H09020067-003					
DI BLANK	2/9/2009	AEH-0902-167	Blank	H09020078-006					
RINSATE	2/6/2009	AEH-0902-155	Blank	H09020067-006					
RINSATE	2/9/2009	AEH-0902-172	Blank	H09020078-011					

Bold font indicates value exceeds concentration limit.

February 2009 Asarco East Helena CAMU Groundwater Data

Site	Sample Date	Sample ID	Type	pH (s.u.)	SC ($\mu\text{mhos/cm}$)	TDS (mg/L)	TSS (mg/L)	Total Alkalinity (mg/L as CaCO ₃)
MW-1	2/6/2009	AEH-0902-153		7.6	434	302	13	120
MW-1	2/6/2009	AEH-0902-154	Field Duplicate	7.8	437	303	13	120
MW-2	2/6/2009	AEH-0902-160		7.3	497	307	< 10	240
MW-3	2/6/2009	AEH-0902-161		7.5	616	402	< 10	250
MW-4	2/6/2009	AEH-0902-151		7.8	508	337	13	180
MW-5	2/6/2009	AEH-0902-157		8	344	212	104	140
MW-6	2/9/2009	AEH-0902-163		7.3	758	512	< 10	260
MW-7	2/6/2009	AEH-0902-150		7.8	223	174	424	94
MW-8	2/6/2009	AEH-0902-158		7.7	466	311	81	160
MW-9	2/6/2009	AEH-0902-156		7.7	428	280	206	160
MW-10	2/6/2009	AEH-0902-159		7.7	780	520	54	260
MW-11	2/9/2009	AEH-0902-162		7.7	642	458	< 10	110
DI BLANK	2/6/2009	AEH-0902-152	Blank	5.7	2	< 10	< 10	< 1
DI BLANK	2/9/2009	AEH-0902-167	Blank	5.8	2	< 10	< 10	< 1
RINSATE	2/6/2009	AEH-0902-155	Blank	5.8	2	< 10	< 10	< 1
RINSATE	2/9/2009	AEH-0902-172	Blank	5.8	2	< 10	< 10	< 1

Bold font indicates value exceeds concentration limit.

February 2009 Asarco East Helena CAMU Groundwater Data

Site	Sample Date	Sample ID	Type	HCO ₃ (mg/L)	Cl (mg/L)	SO ₄ (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)
MW-1	2/6/2009	AEH-0902-153		140	12	76	46	9	24	5
MW-1	2/6/2009	AEH-0902-154	Field Duplicate	150	12	76	46	9	23	5
MW-2	2/6/2009	AEH-0902-160		290	6	25	63	13	19	5
MW-3	2/6/2009	AEH-0902-161		310	10	63	79	17	22	6
MW-4	2/6/2009	AEH-0902-151		220	9	71	56	11	29	6
MW-5	2/6/2009	AEH-0902-157		170	6	27	35	6	23	4
MW-6	2/9/2009	AEH-0902-163		320	18	140	99	22	26	6
MW-7	2/6/2009	AEH-0902-150		120	2	11	16	4	19	5
MW-8	2/6/2009	AEH-0902-158		190	9	63	53	10	23	6
MW-9	2/6/2009	AEH-0902-156		190	8	49	46	9	24	5
MW-10	2/6/2009	AEH-0902-159		320	19	140	94	22	35	7
MW-11	2/9/2009	AEH-0902-162		130	29	160	50	12	56	11
DI BLANK	2/6/2009	AEH-0902-152	Blank	< 1	< 1	< 1	< 1	< 1	< 1	< 1
DI BLANK	2/9/2009	AEH-0902-167	Blank	< 1	< 1	< 1	< 1	< 1	< 1	< 1
RINSATE	2/6/2009	AEH-0902-155	Blank	< 1	< 1	< 1	< 1	< 1	< 1	< 1
RINSATE	2/9/2009	AEH-0902-172	Blank	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Bold font indicates value exceeds concentration limit.

February 2009 Asarco East Helena CAMU Groundwater Data

Site	Sample Date	Sample ID	Type	Dissolved Metals (mg/L)									
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Fe
MW-1	2/6/2009	AEH-0902-153		<0.005	<0.01	0.004	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	< 0.02
MW-1	2/6/2009	AEH-0902-154	Field Duplicate	<0.005	<0.01	0.004	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	< 0.02
MW-2	2/6/2009	AEH-0902-160		<0.005	<0.01	0.012	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	< 0.02
MW-3	2/6/2009	AEH-0902-161		<0.005	<0.01	0.011	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	< 0.02
MW-4	2/6/2009	AEH-0902-151		<0.005	<0.01	0.004	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	< 0.02
MW-5	2/6/2009	AEH-0902-157		<0.005	<0.01	0.007	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	< 0.02
MW-6	2/9/2009	AEH-0902-163		<0.005	<0.01	0.077	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	0.18
MW-7	2/6/2009	AEH-0902-150		<0.005	0.02	0.017	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	0.02
MW-8	2/6/2009	AEH-0902-158		<0.005	<0.01	0.008	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	< 0.02
MW-9	2/6/2009	AEH-0902-156		<0.005	<0.01	0.006	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	< 0.02
MW-10	2/6/2009	AEH-0902-159		<0.005	<0.01	0.010	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	< 0.02
MW-11	2/9/2009	AEH-0902-162		<0.005	<0.01	0.017	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	< 0.02
DI BLANK	2/6/2009	AEH-0902-152	Blank	<0.005	<0.01	< 0.002	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	< 0.02
DI BLANK	2/9/2009	AEH-0902-167	Blank	<0.005	<0.01	< 0.002	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	< 0.02
RINSATE	2/6/2009	AEH-0902-155	Blank	<0.005	<0.01	< 0.002	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	< 0.02
RINSATE	2/9/2009	AEH-0902-172	Blank	<0.005	<0.01	< 0.002	<0.1	< 0.001	< 0.001	<0.01	< 0.001	< 0.004	< 0.02

Bold font indicates value exceeds concentration limit.

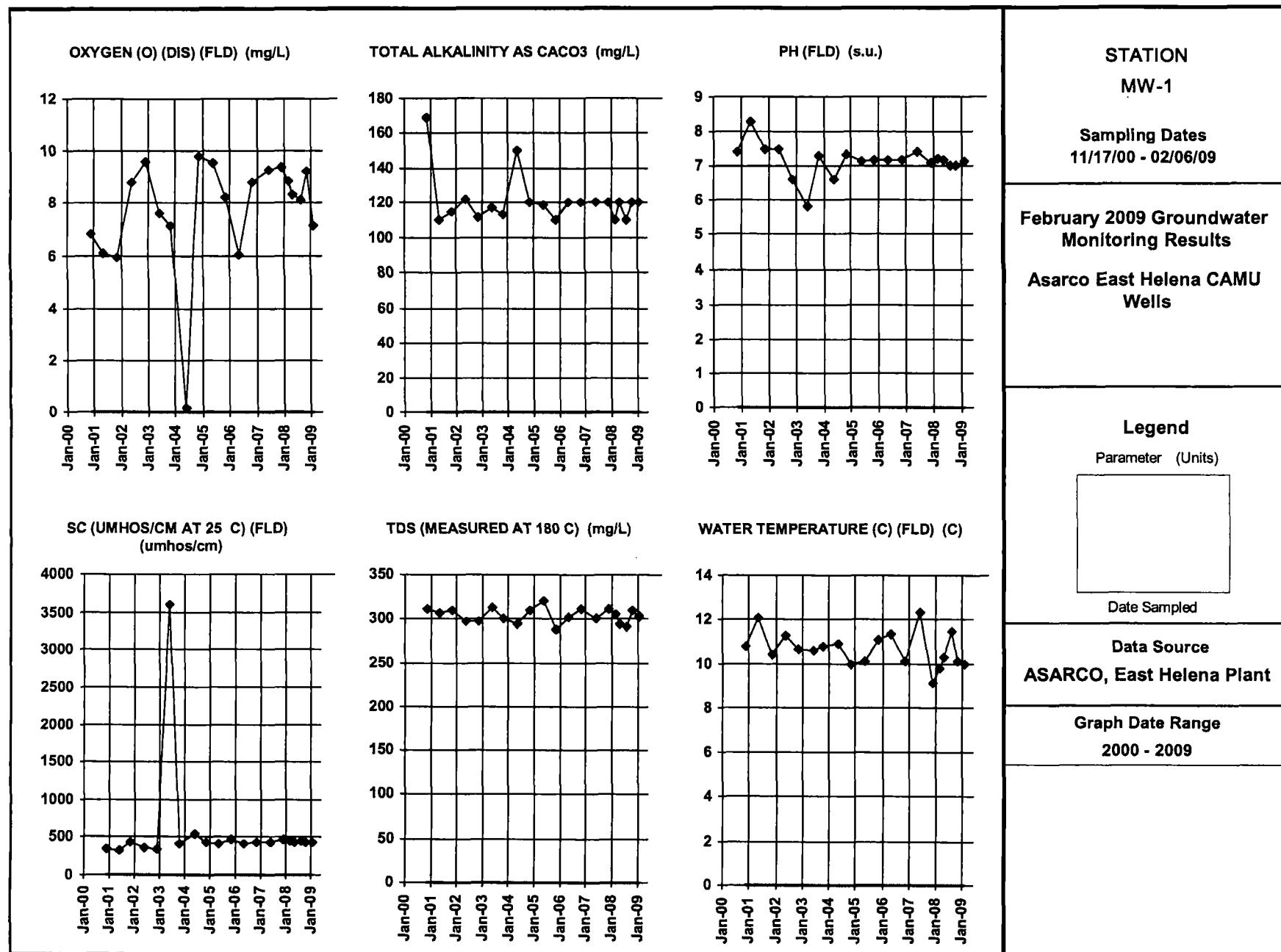
February 2009 Asarco East Helena CAMU Groundwater Data

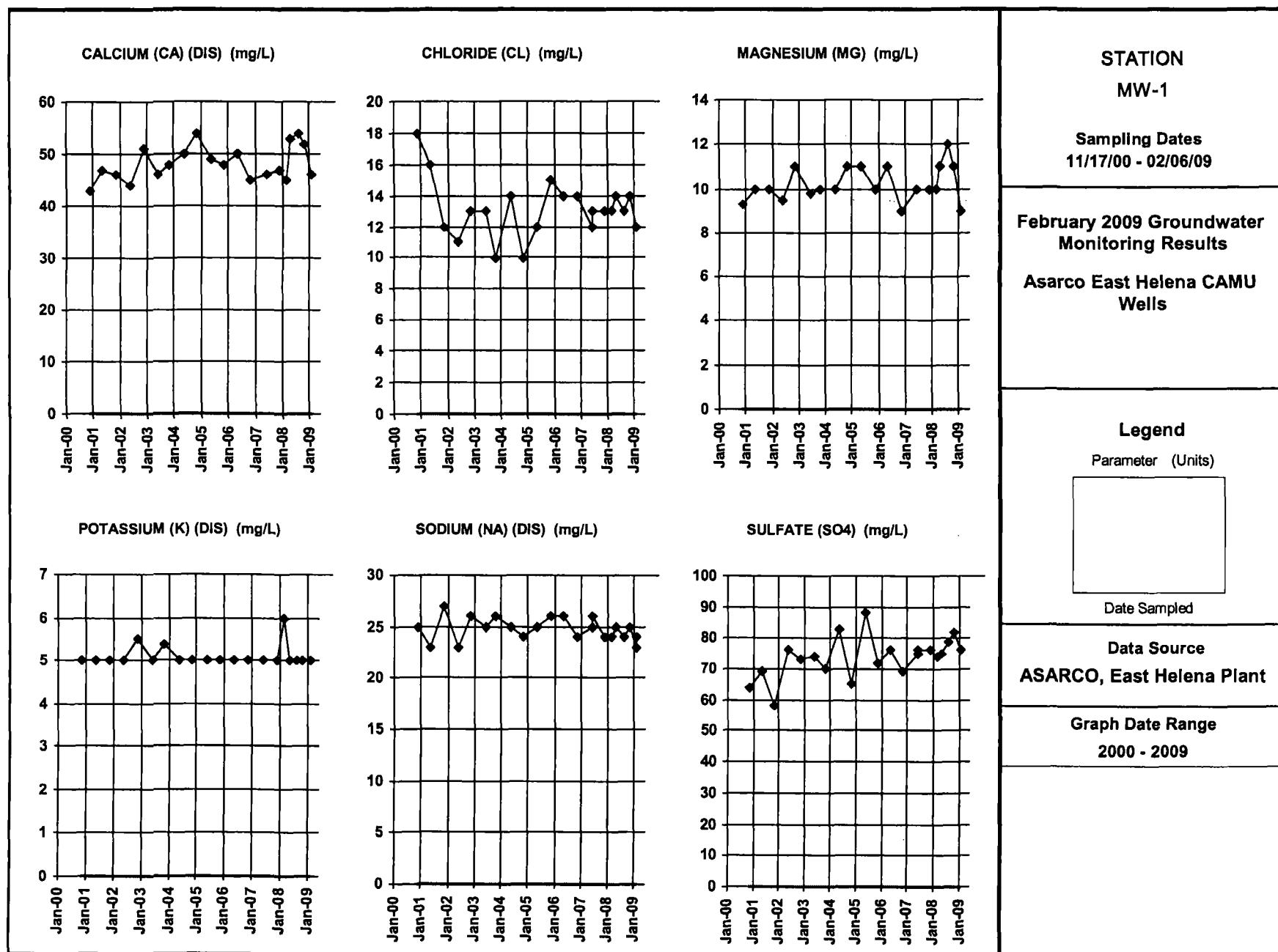
Site	Sample Date	Sample ID	Type	Dissolved Metals (mg/L)									
				Hg	Mn	Ni	Pb	Sb	Se	Tl	V	Zn	
MW-1	2/6/2009	AEH-0902-153		< 0.001	< 0.01	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	< 0.01	< 0.02	
MW-1	2/6/2009	AEH-0902-154	Field Duplicate	< 0.001	< 0.01	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	< 0.01	< 0.02	
MW-2	2/6/2009	AEH-0902-160		< 0.001	0.23	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	< 0.01	< 0.02	
MW-3	2/6/2009	AEH-0902-161		< 0.001	0.03	< 0.01	< 0.005	< 0.003	0.006	< 0.001	< 0.01	< 0.02	
MW-4	2/6/2009	AEH-0902-151		< 0.001	< 0.01	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	< 0.01	< 0.02	
MW-5	2/6/2009	AEH-0902-157		< 0.001	< 0.01	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	< 0.01	< 0.02	
MW-6	2/9/2009	AEH-0902-163		< 0.001	4.52	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	< 0.01	< 0.02	
MW-7	2/6/2009	AEH-0902-150		< 0.001	< 0.01	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	0.02	< 0.02	
MW-8	2/6/2009	AEH-0902-158		< 0.001	< 0.01	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	< 0.01	< 0.02	
MW-9	2/6/2009	AEH-0902-156		< 0.001	< 0.01	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	< 0.01	< 0.02	
MW-10	2/6/2009	AEH-0902-159		< 0.001	< 0.01	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	< 0.01	< 0.02	
MW-11	2/9/2009	AEH-0902-162		< 0.001	< 0.01	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	< 0.01	< 0.02	
DI BLANK	2/6/2009	AEH-0902-152	Blank	< 0.001	< 0.01	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	< 0.01	< 0.02	
DI BLANK	2/9/2009	AEH-0902-167	Blank	< 0.001	< 0.01	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	< 0.01	< 0.02	
RINSATE	2/6/2009	AEH-0902-155	Blank	< 0.001	< 0.01	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	< 0.01	< 0.02	
RINSATE	2/9/2009	AEH-0902-172	Blank	< 0.001	< 0.01	< 0.01	< 0.005	< 0.003	< 0.005	< 0.001	< 0.01	< 0.02	

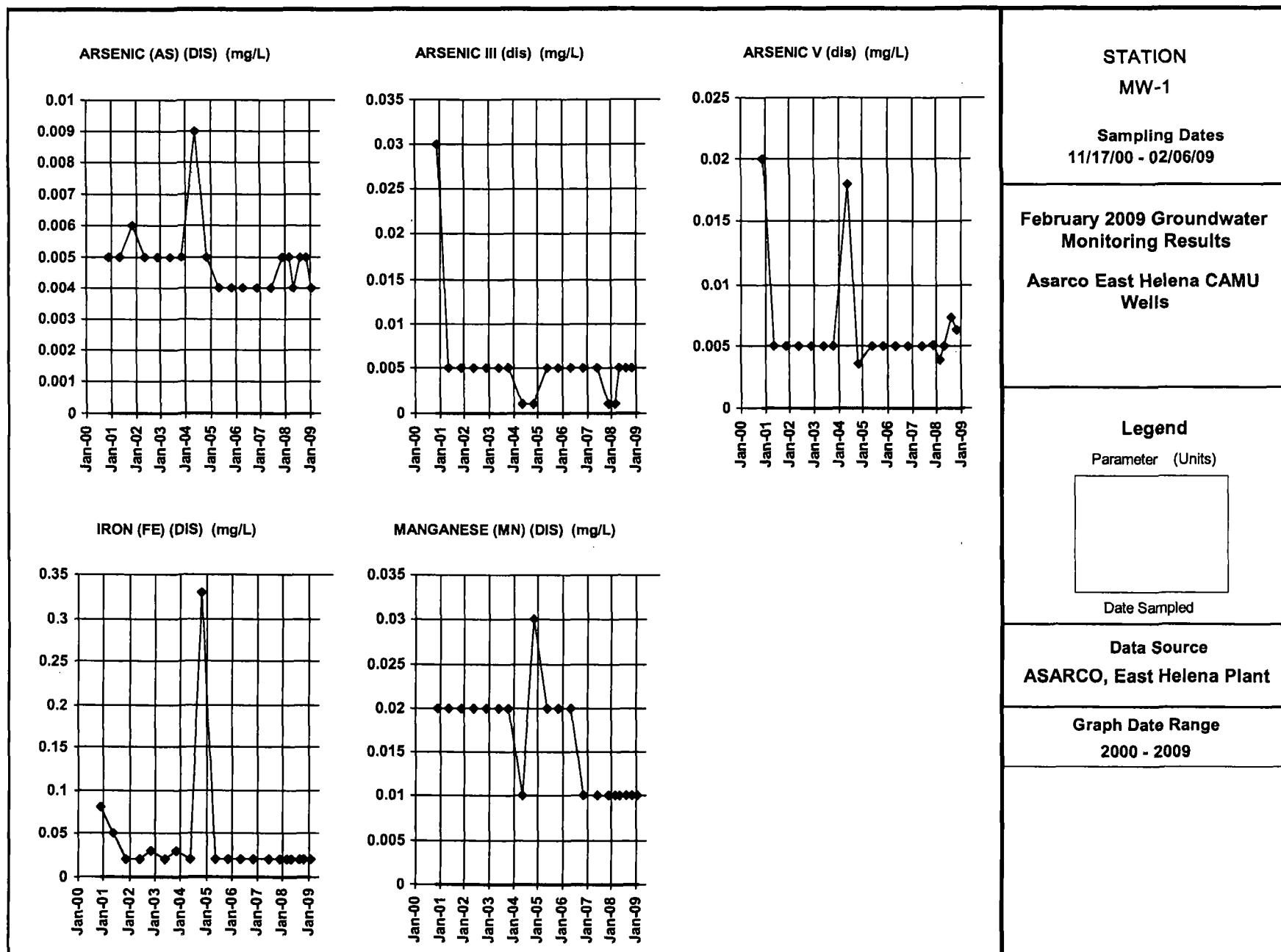
Bold font indicates value exceeds concentration limit.

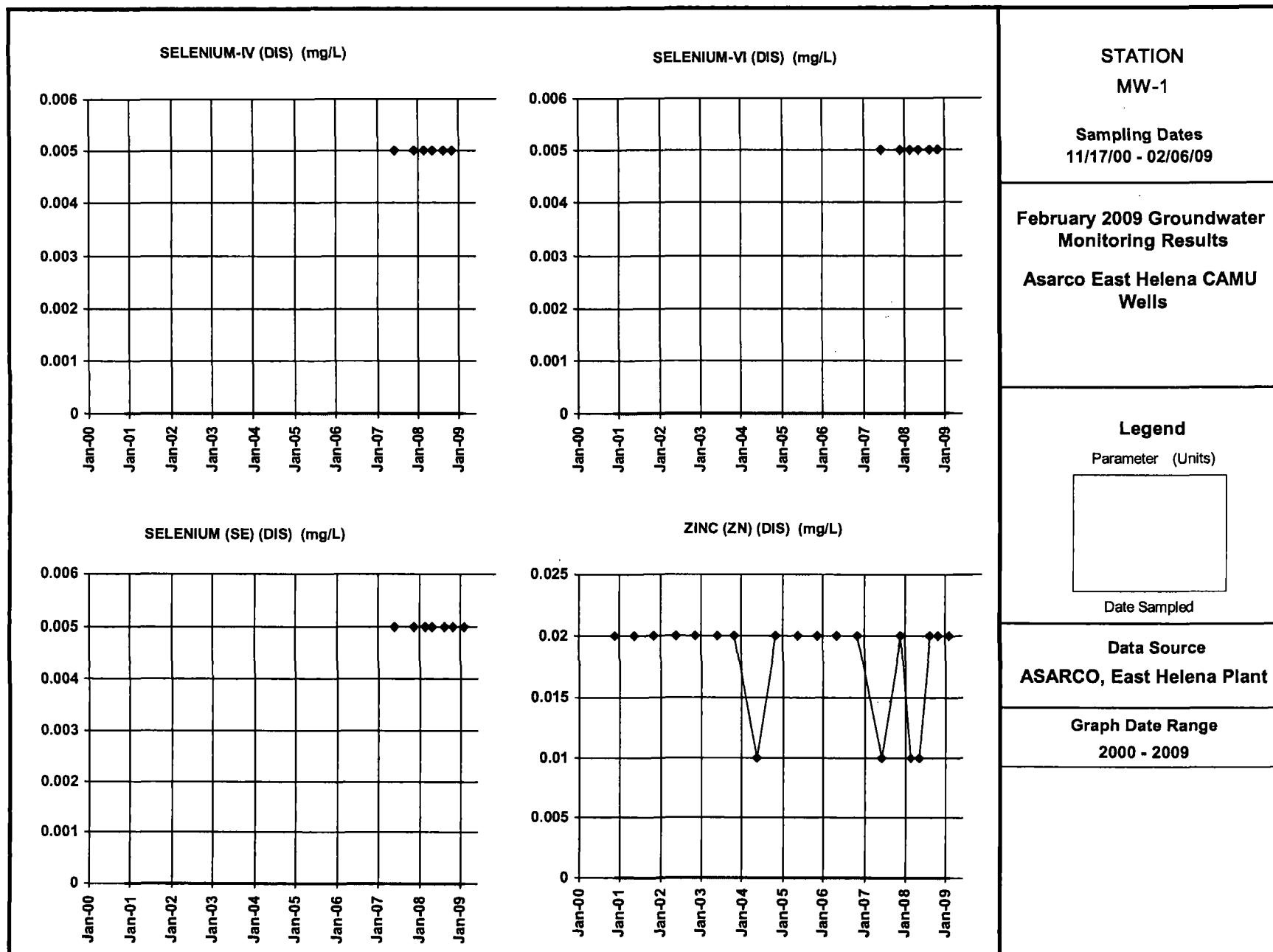
TIME-CONCENTRATION PLOTS THROUGH FEBRUARY 2009

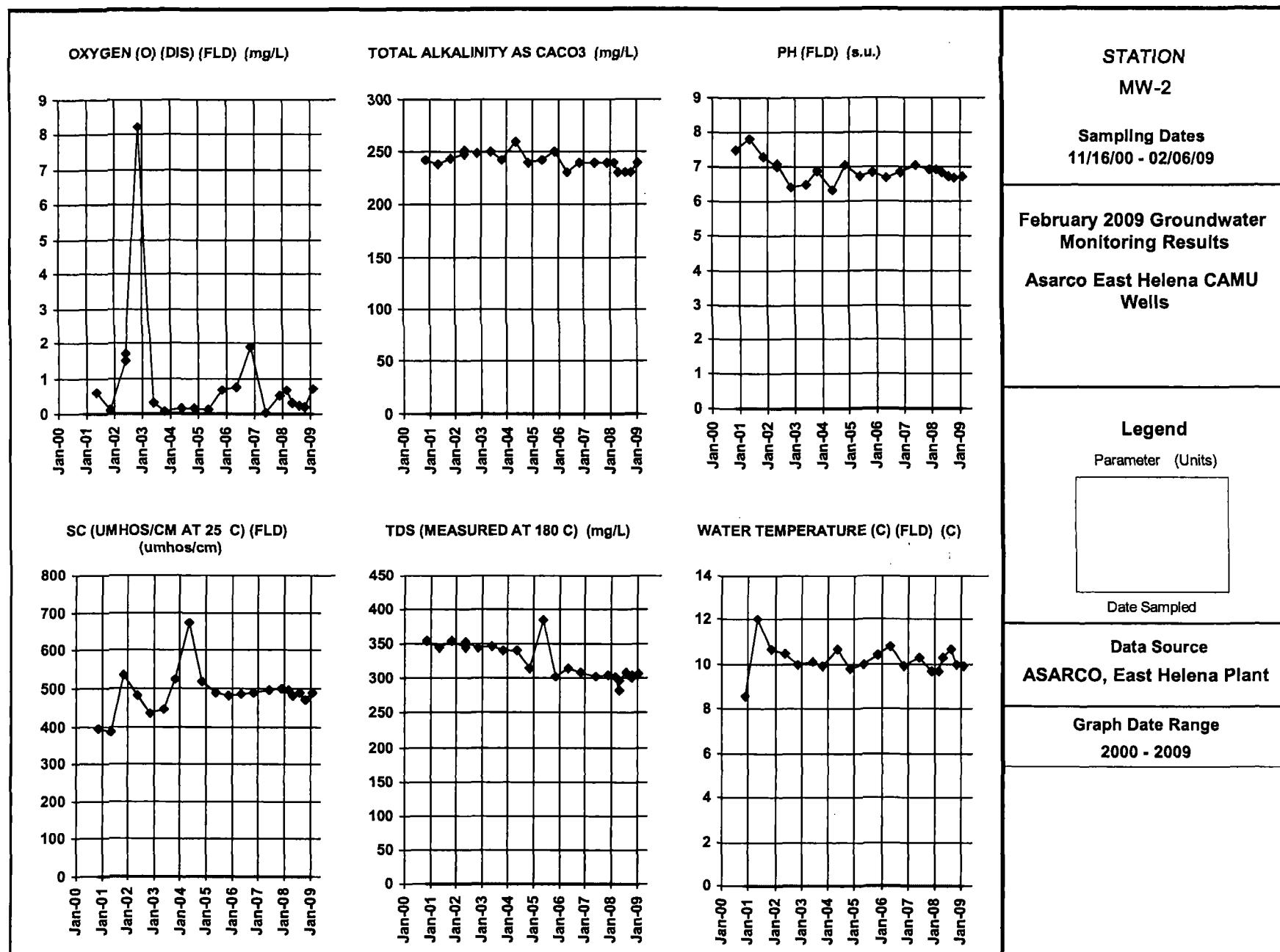
ASARCO EAST HELENA CAMU MONITORING WELLS

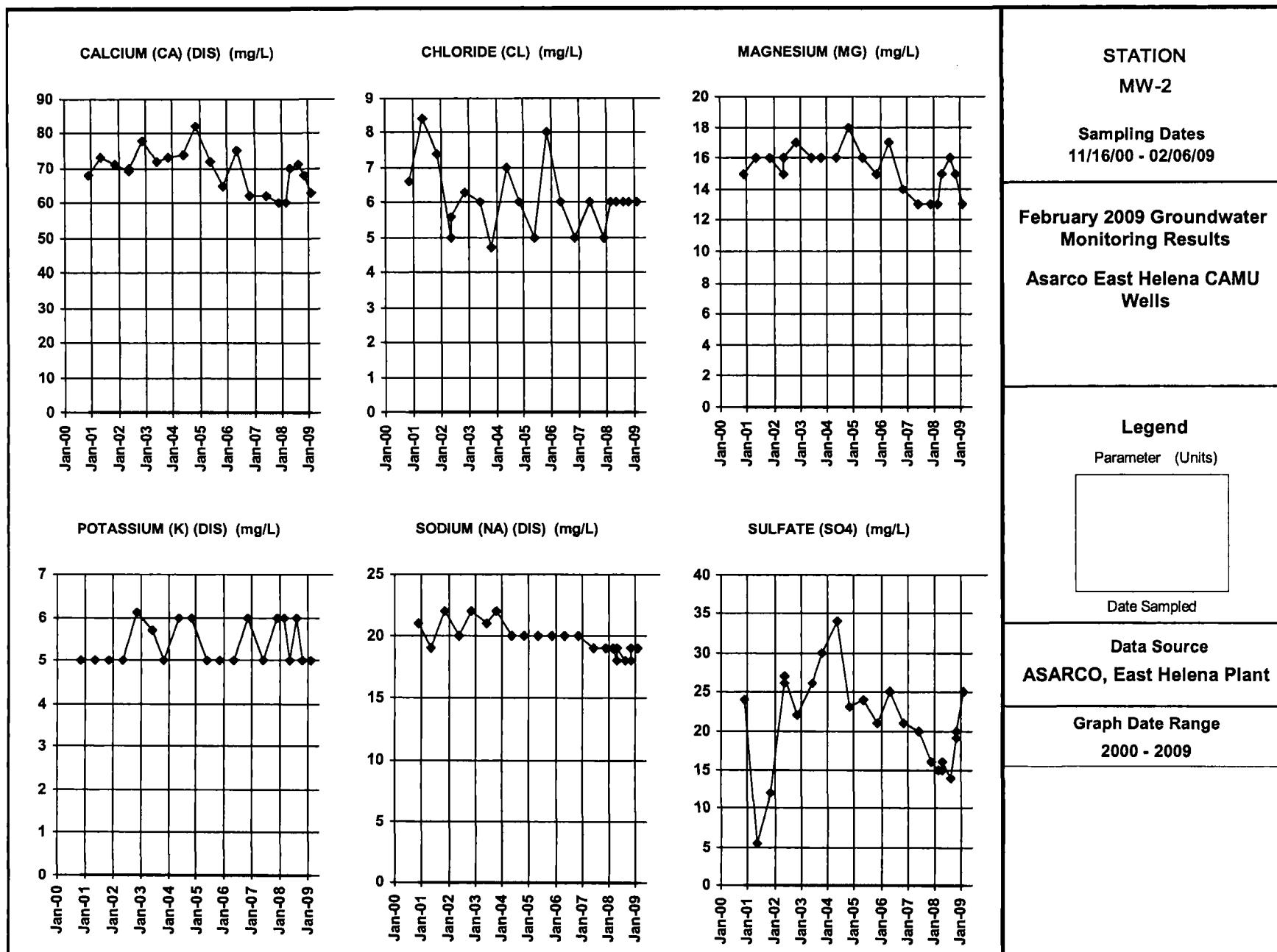


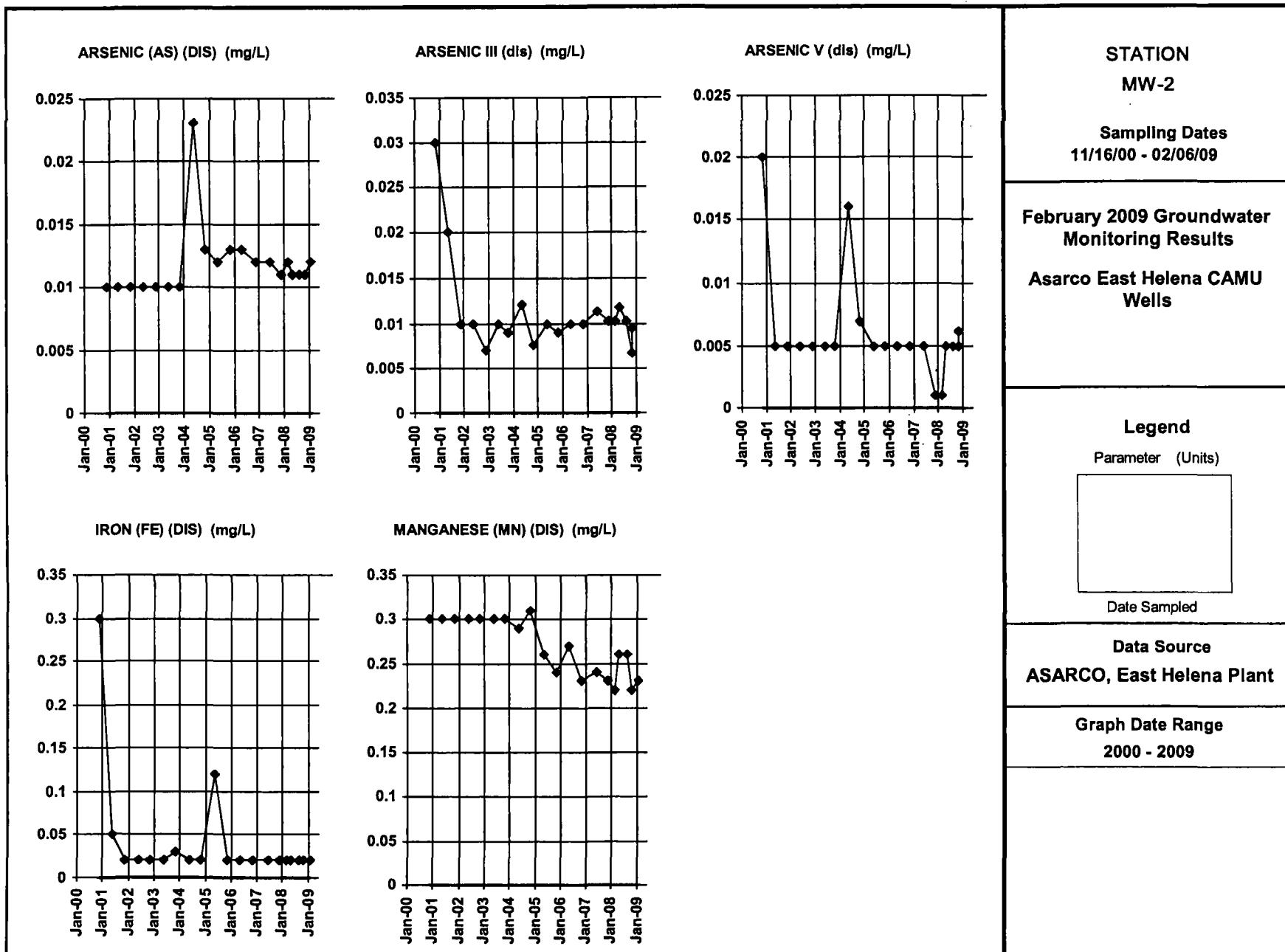


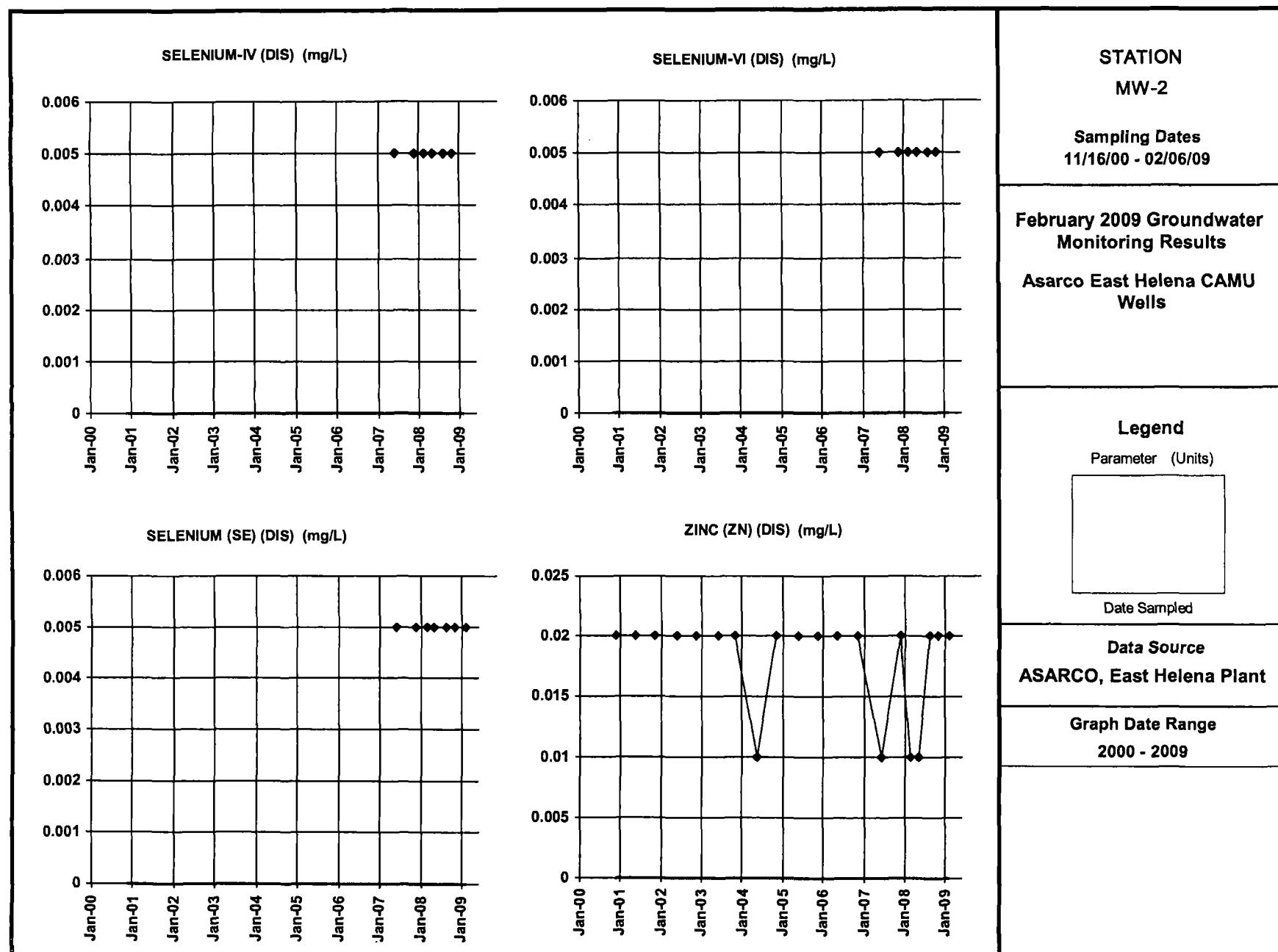


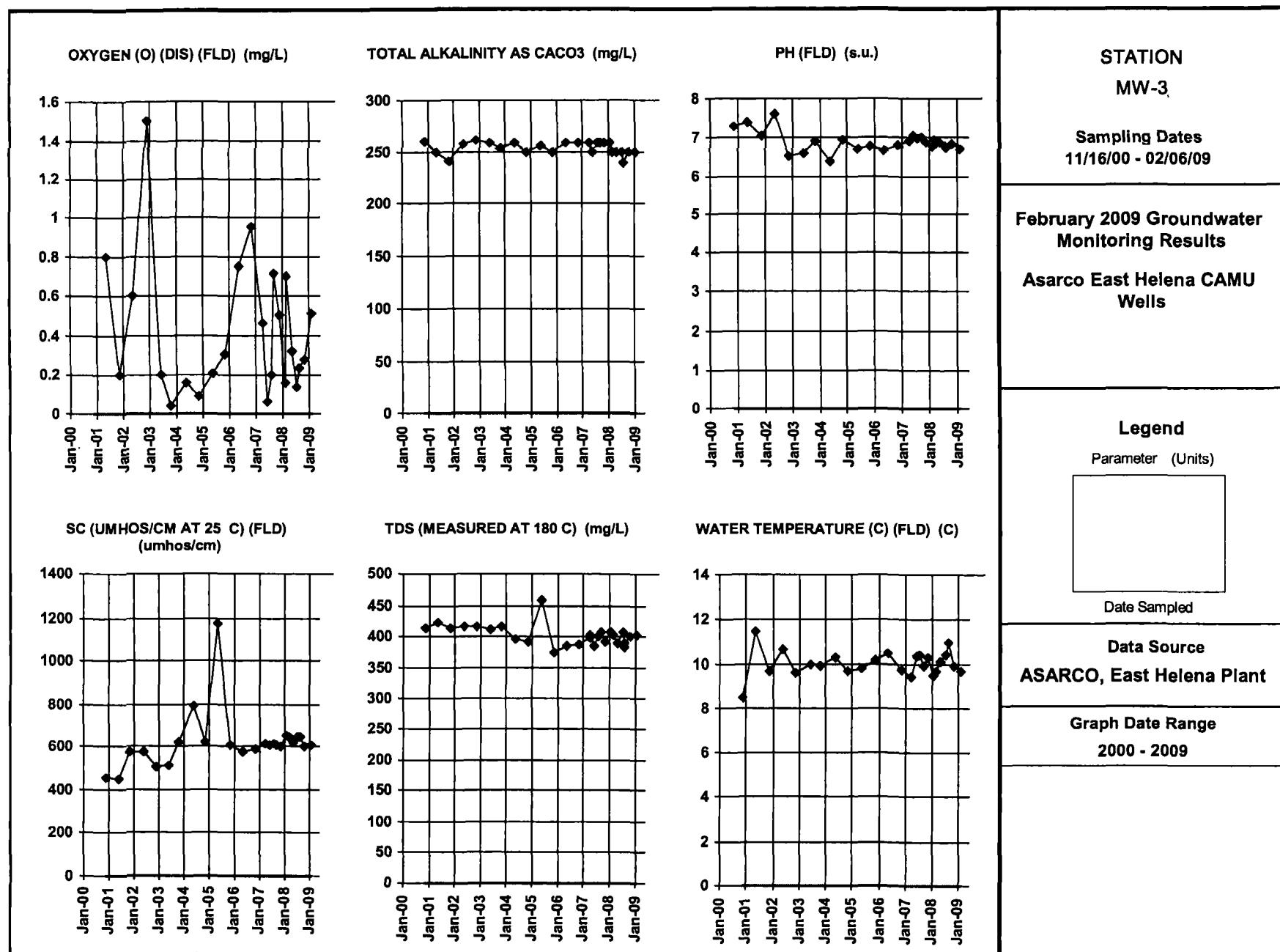


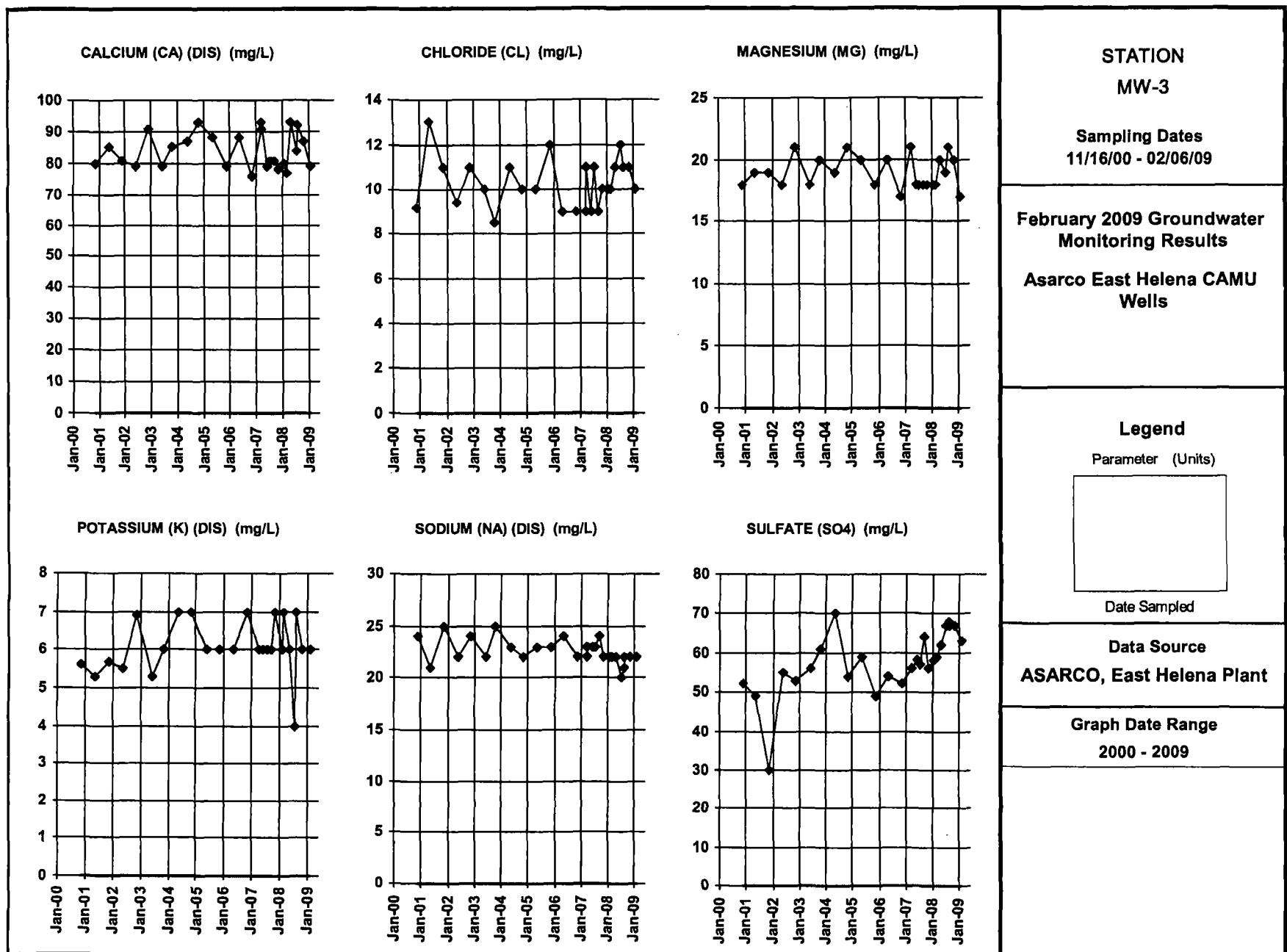


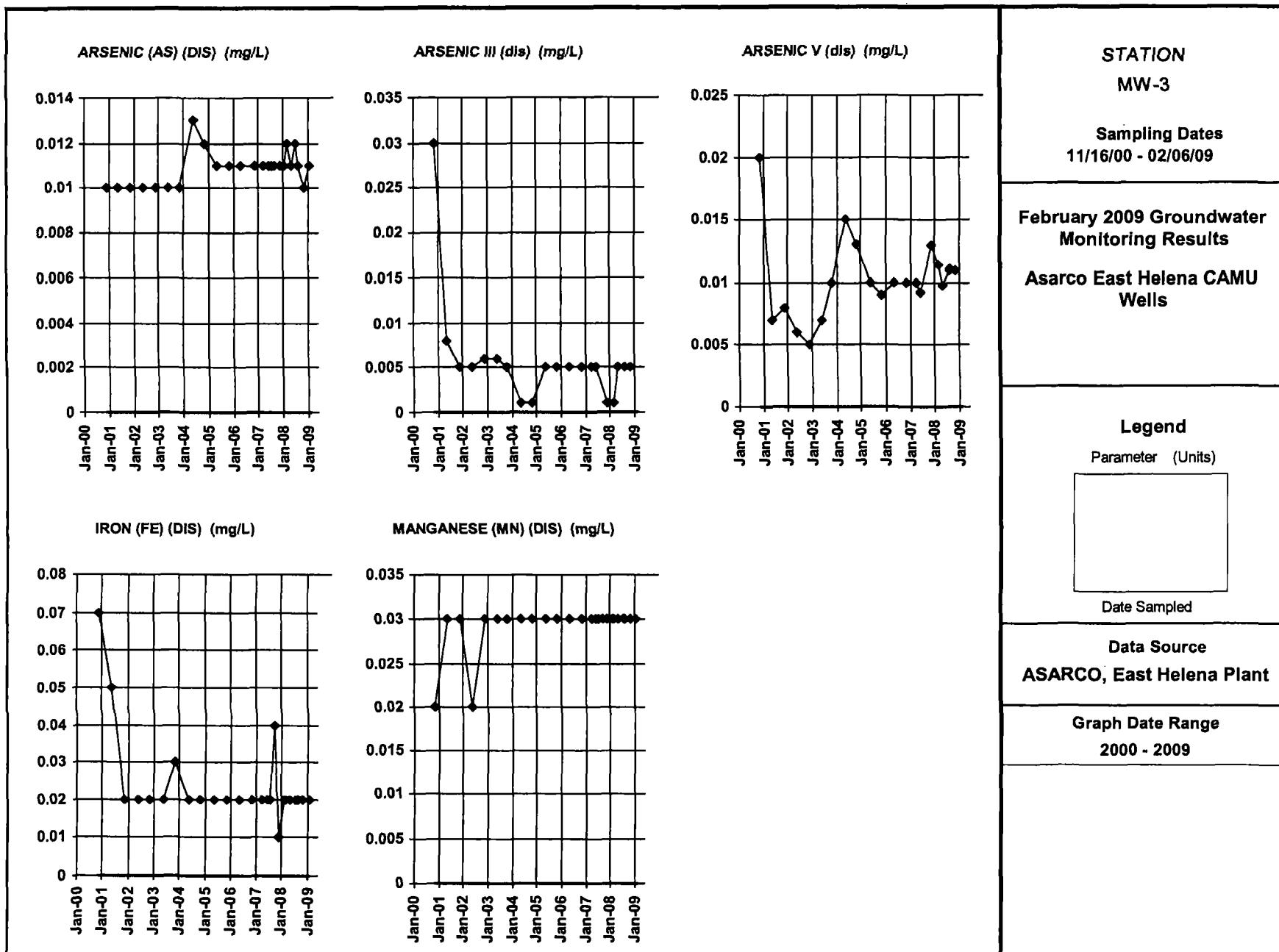


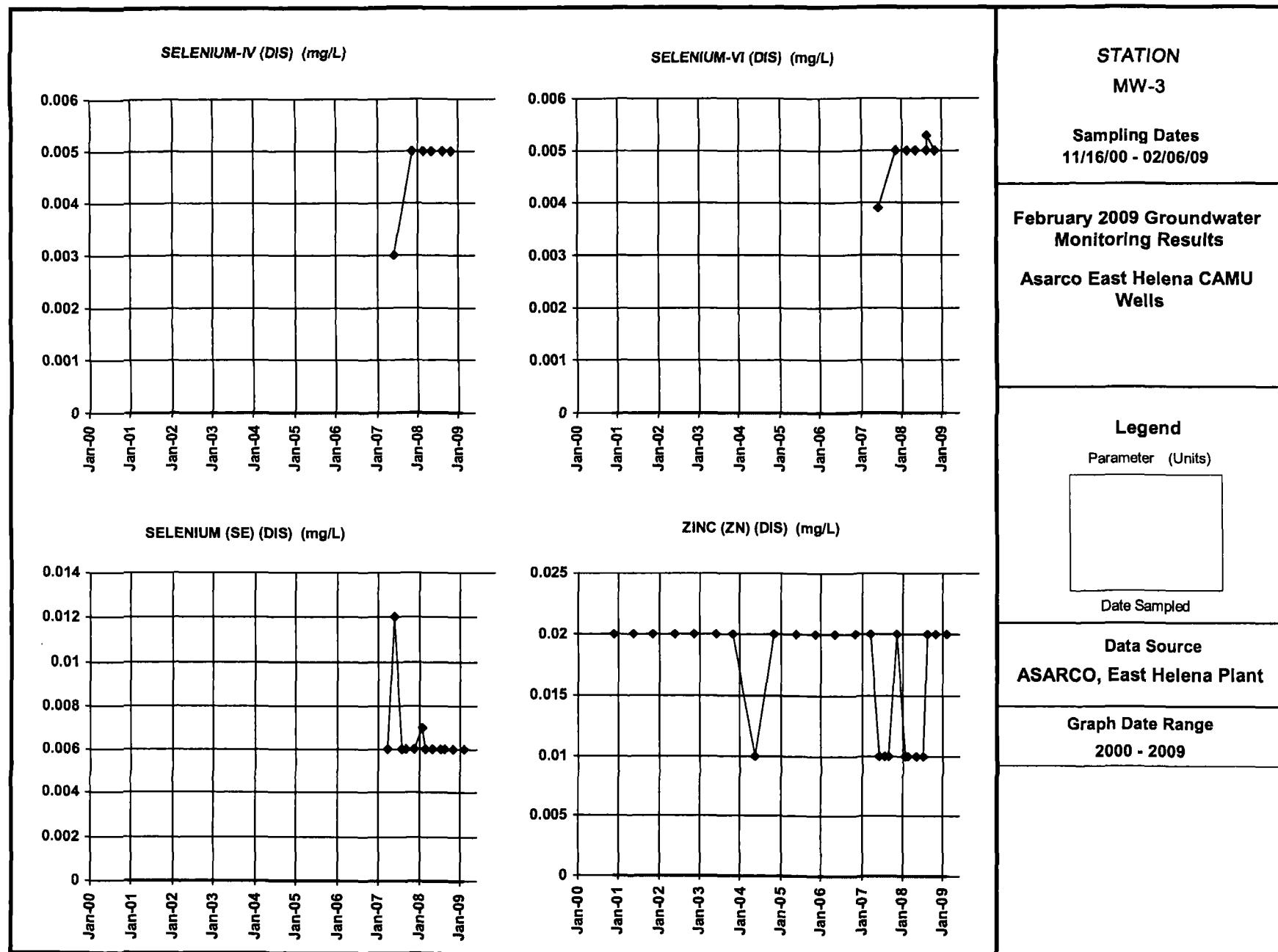


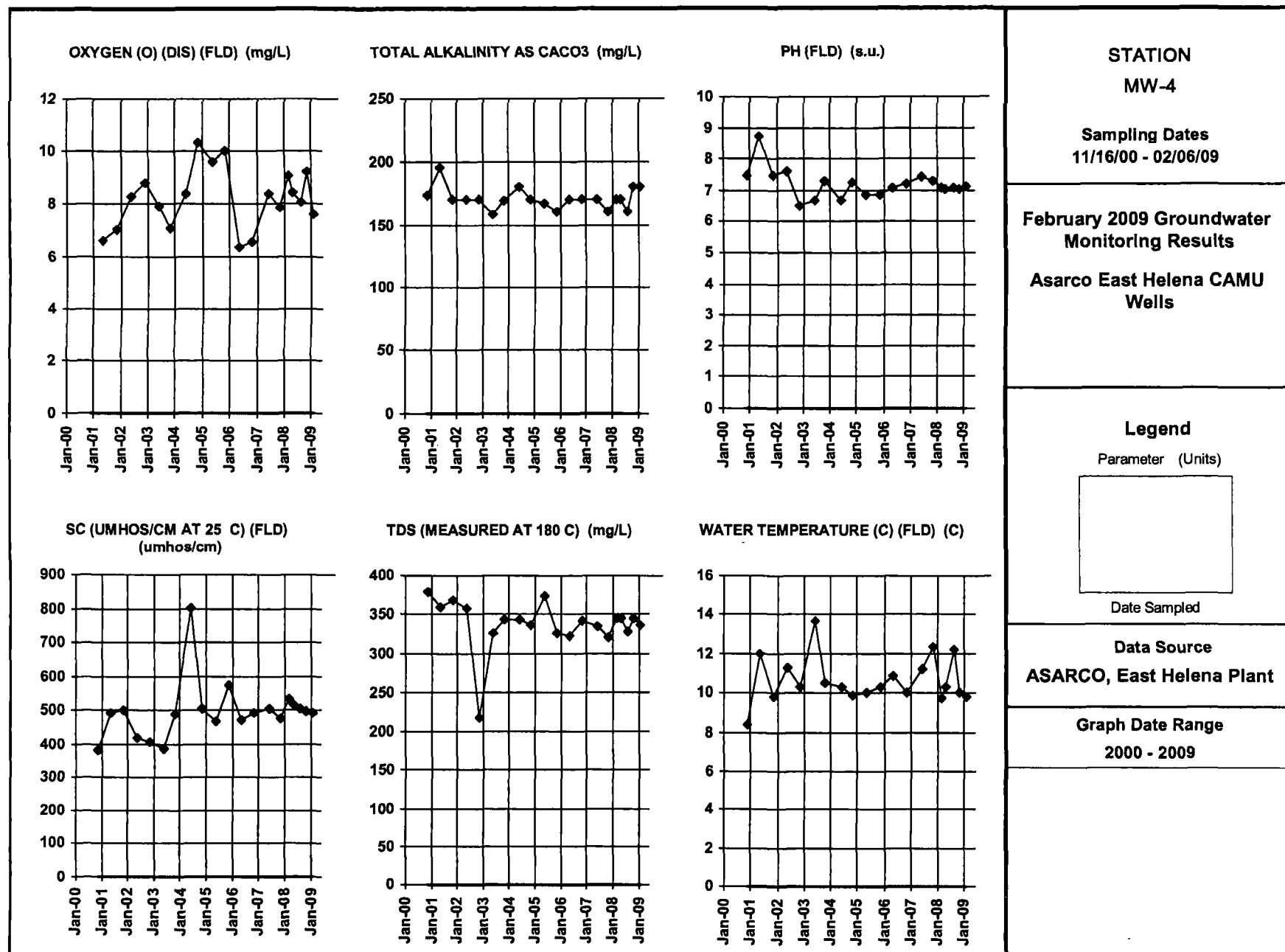










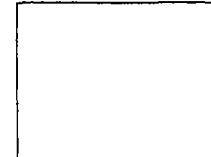


STATION
MW-4

Sampling Dates
11/16/00 - 02/06/09

February 2009 Groundwater Monitoring Results
Asarco East Helena CAMU Wells

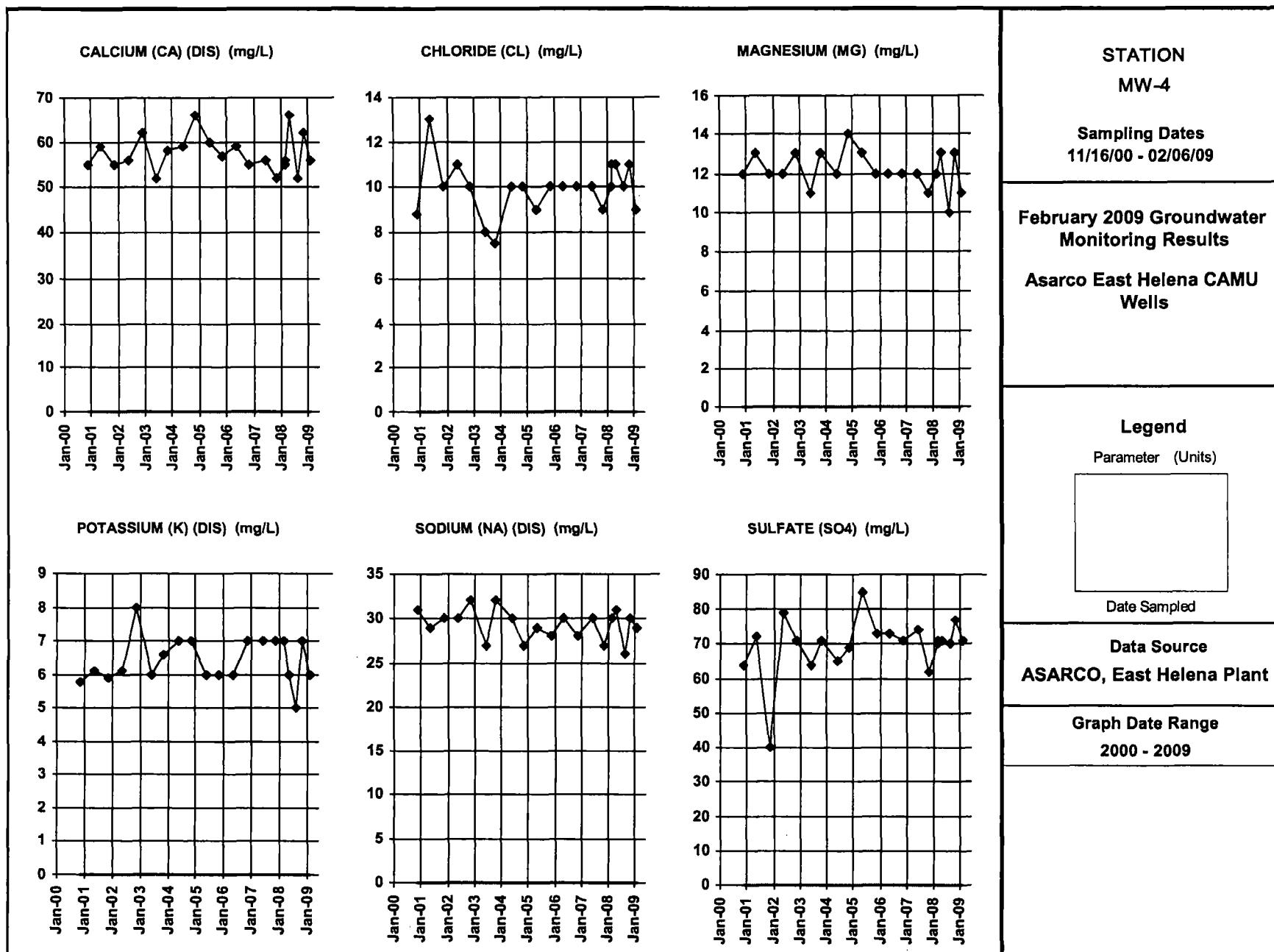
Legend
Parameter (Units)

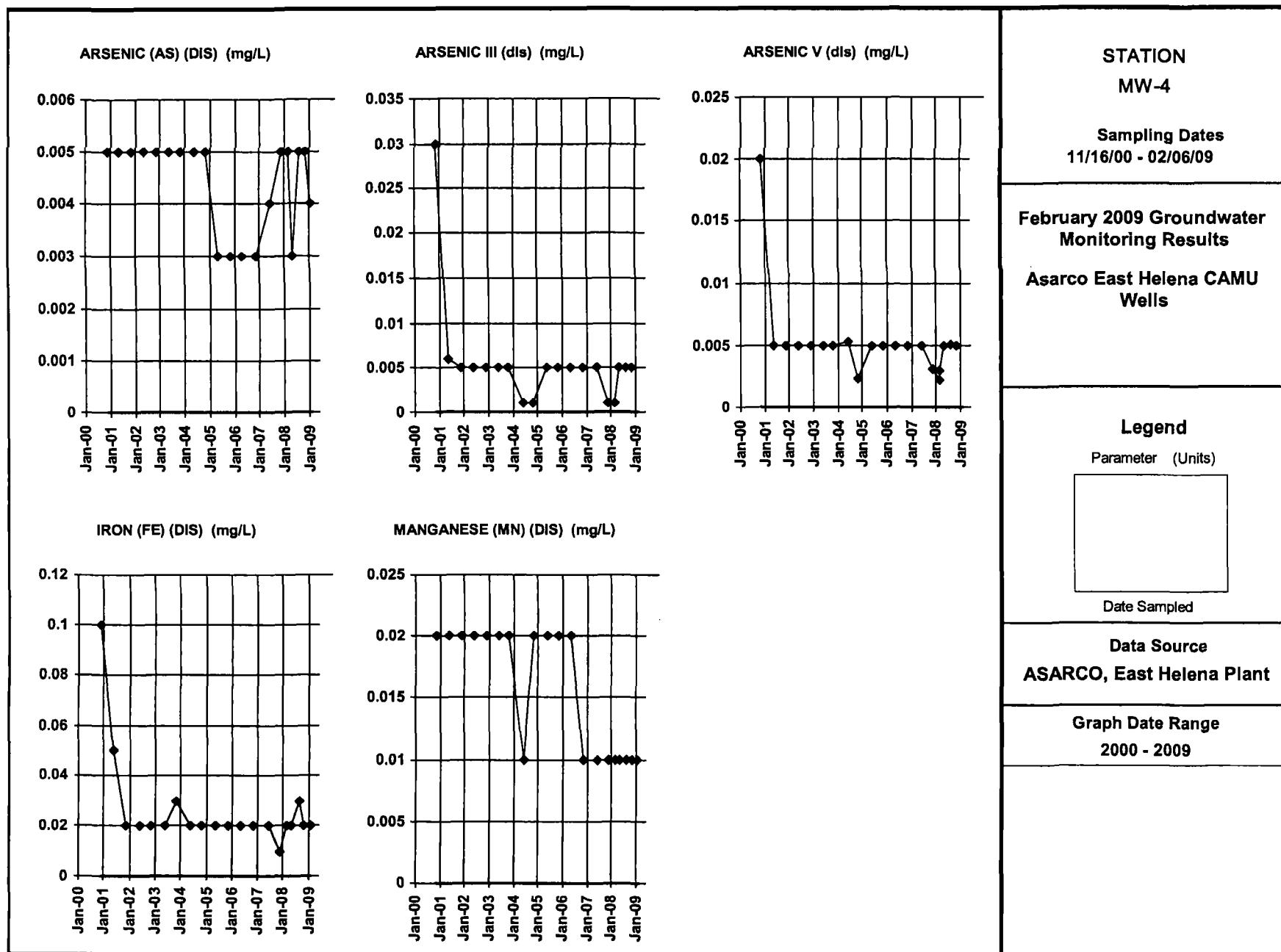


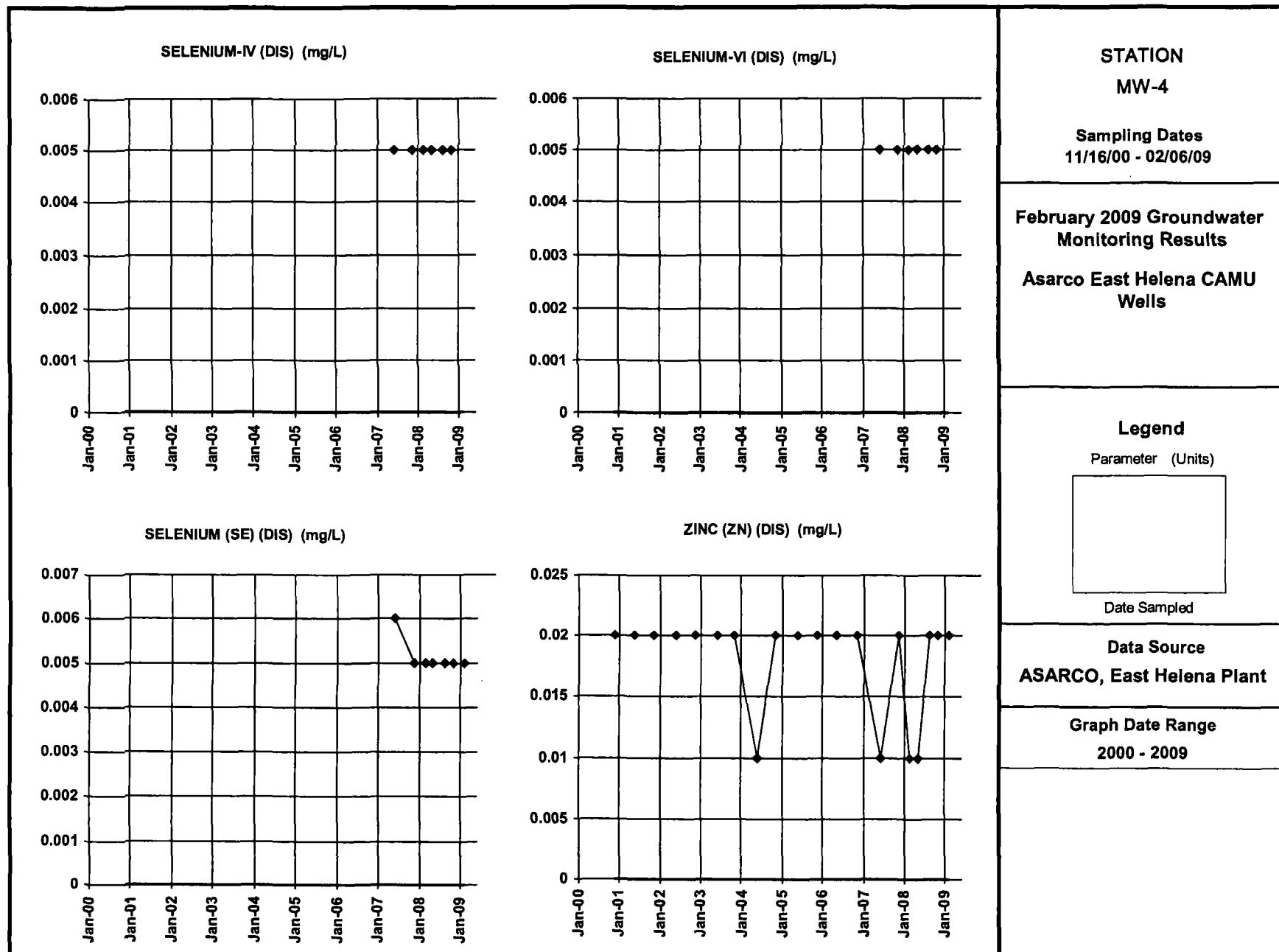
Date Sampled

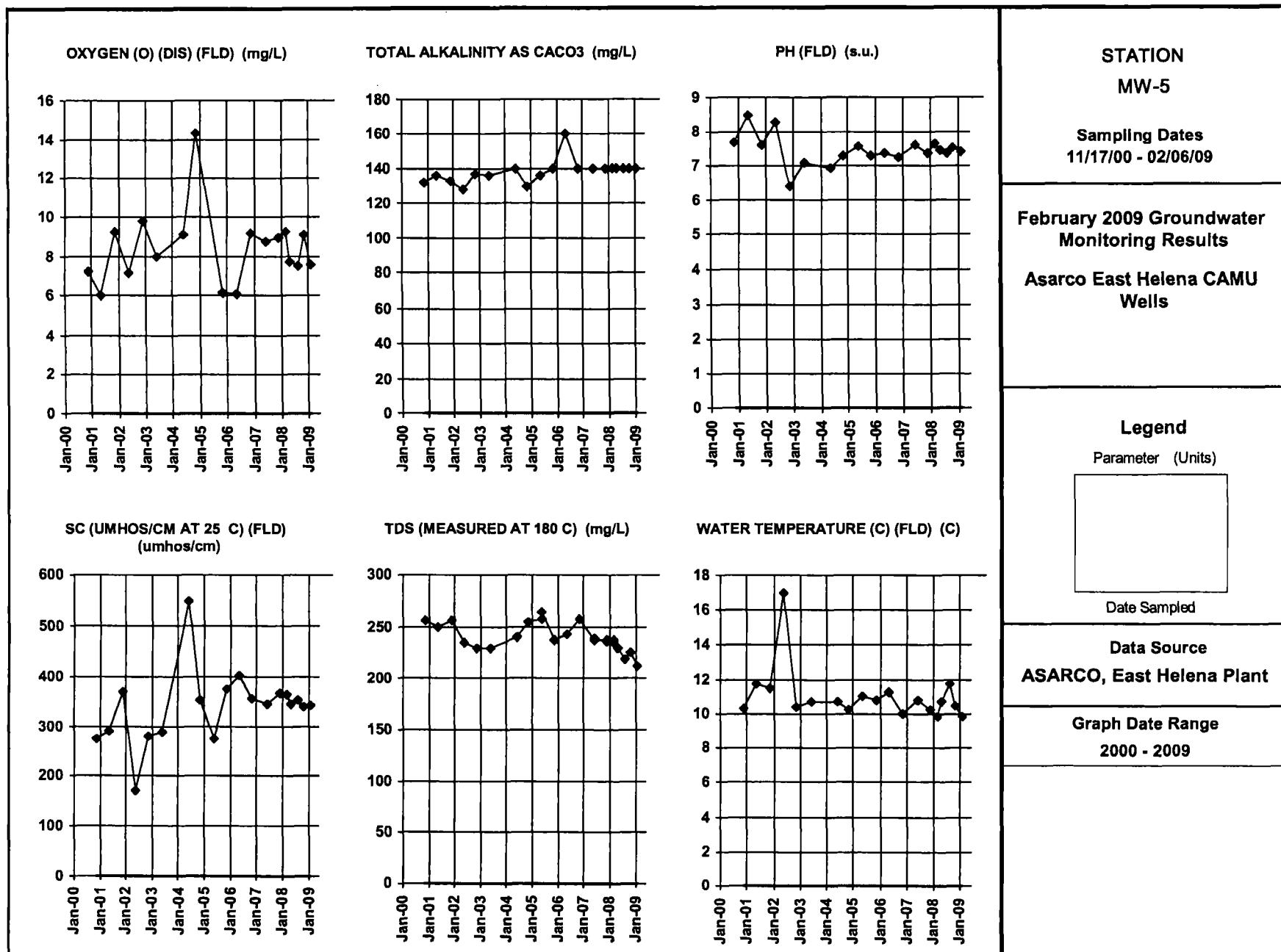
Data Source
ASARCO, East Helena Plant

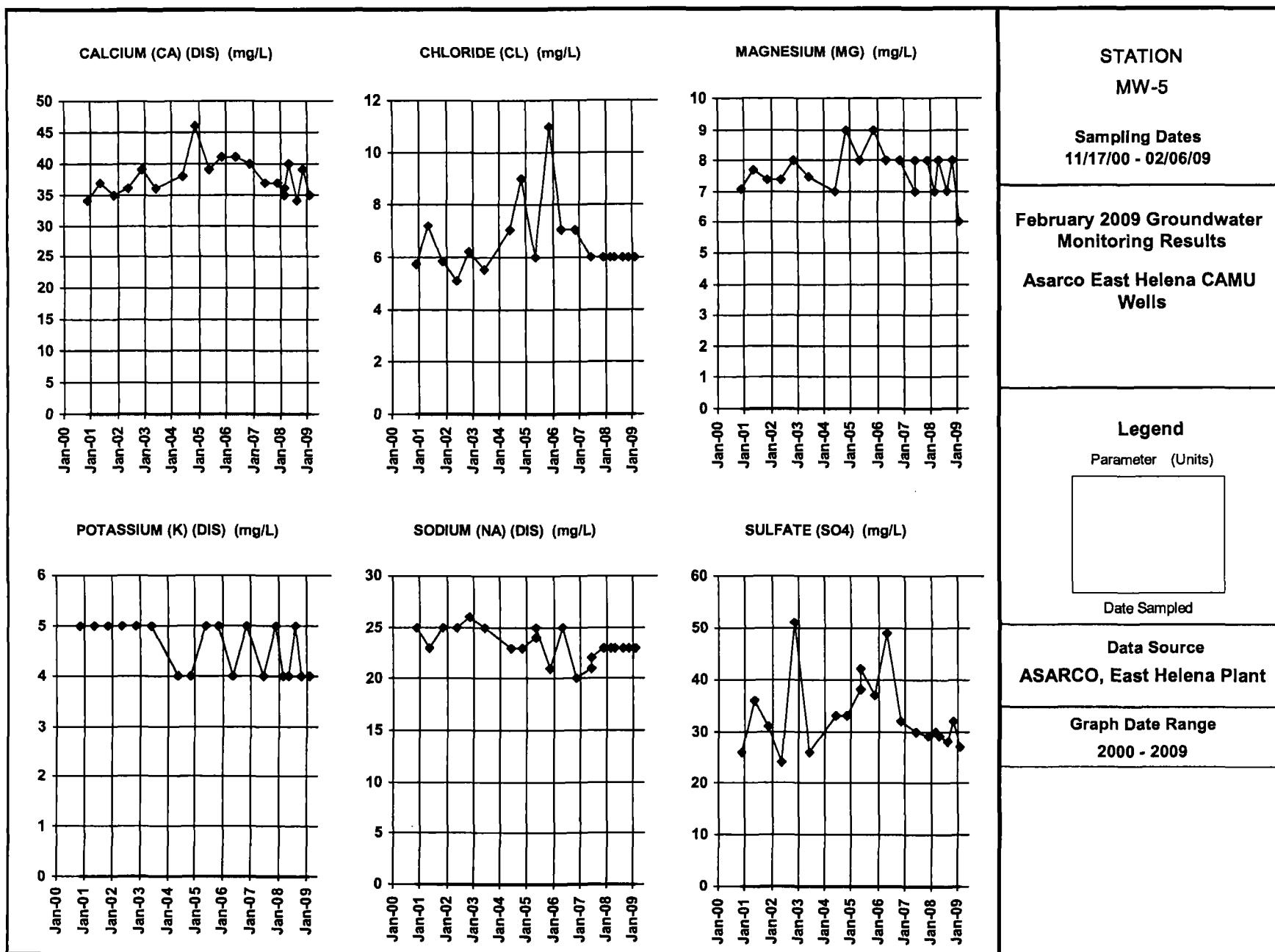
Graph Date Range
2000 - 2009

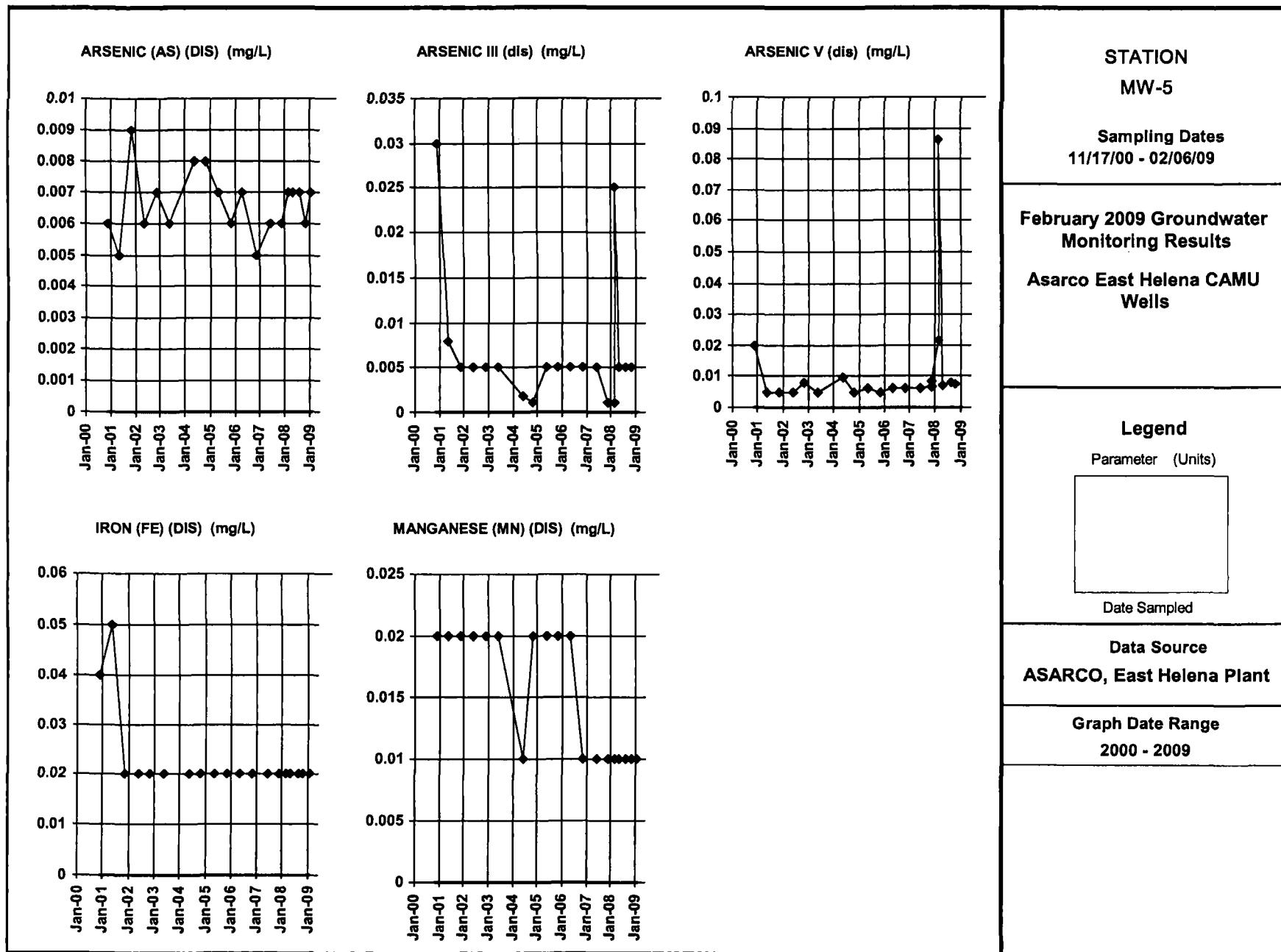


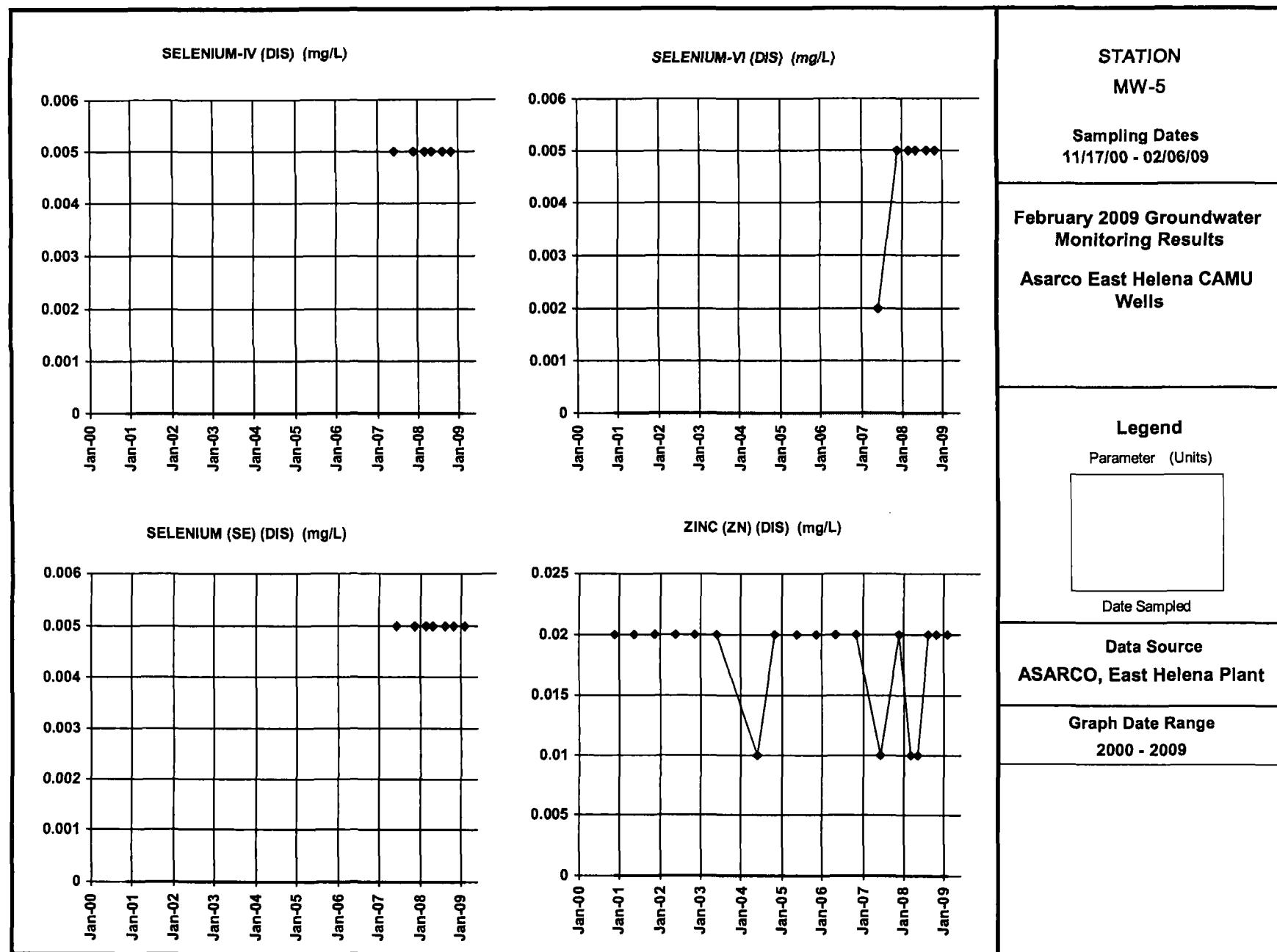


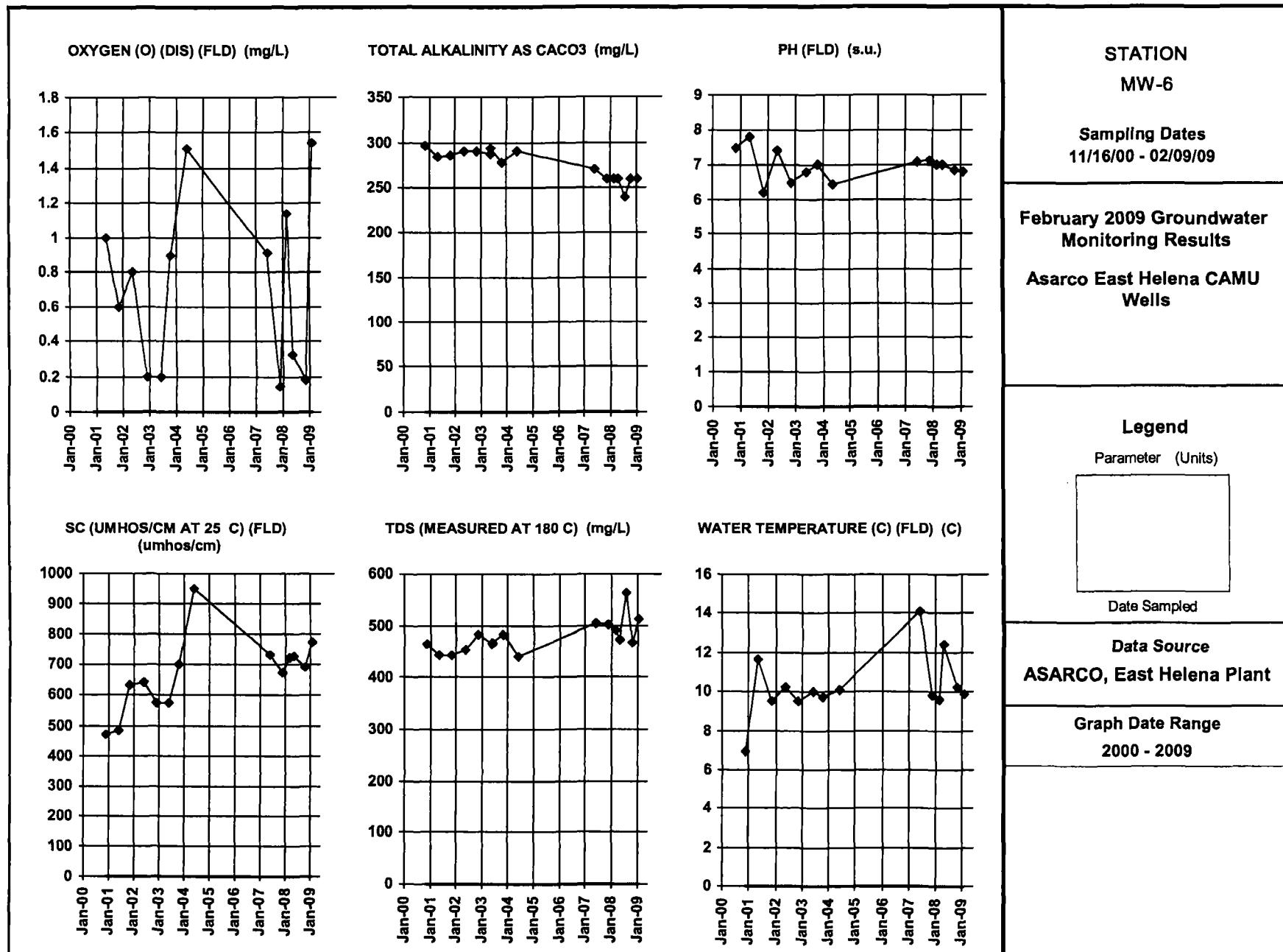


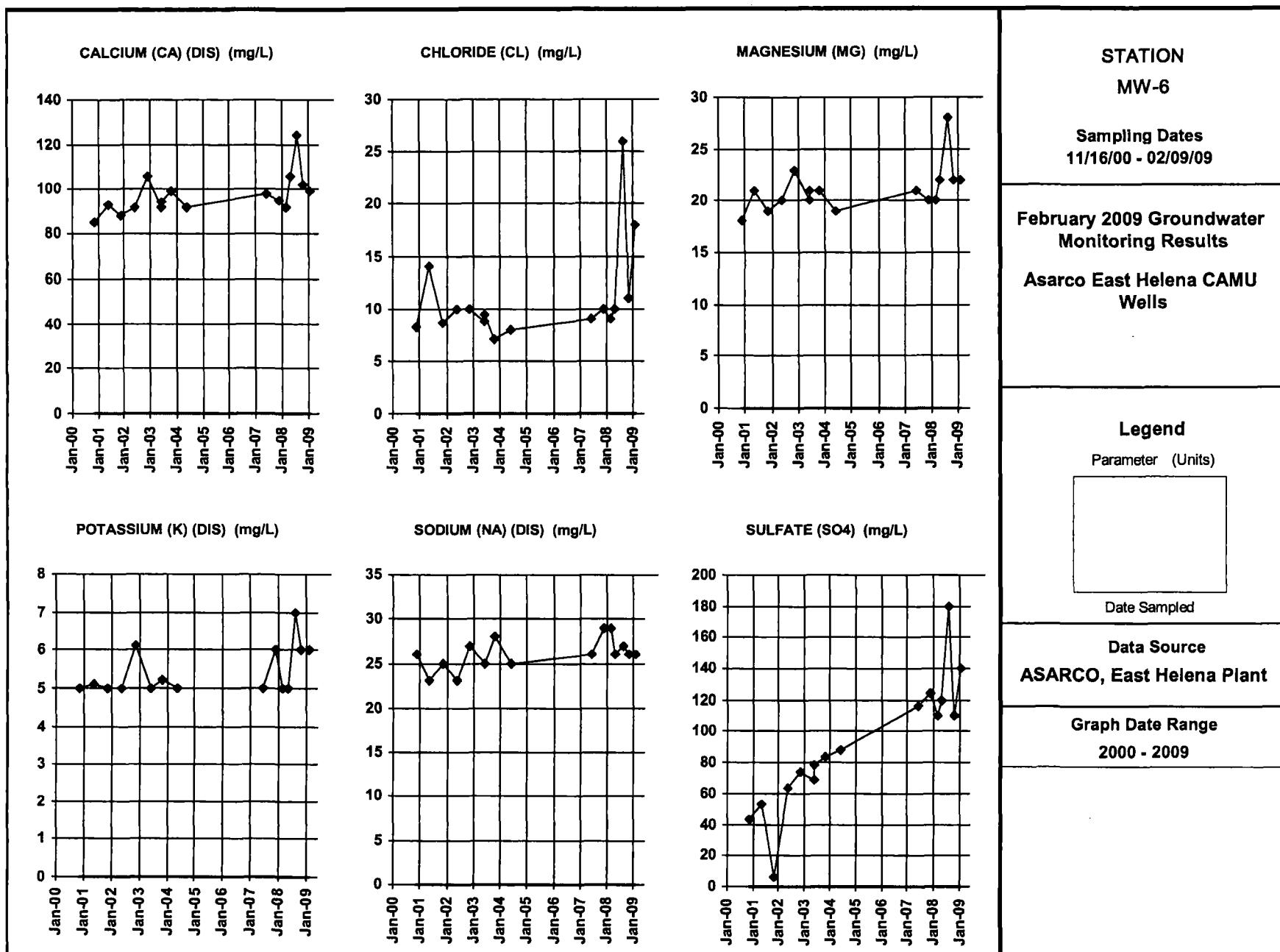


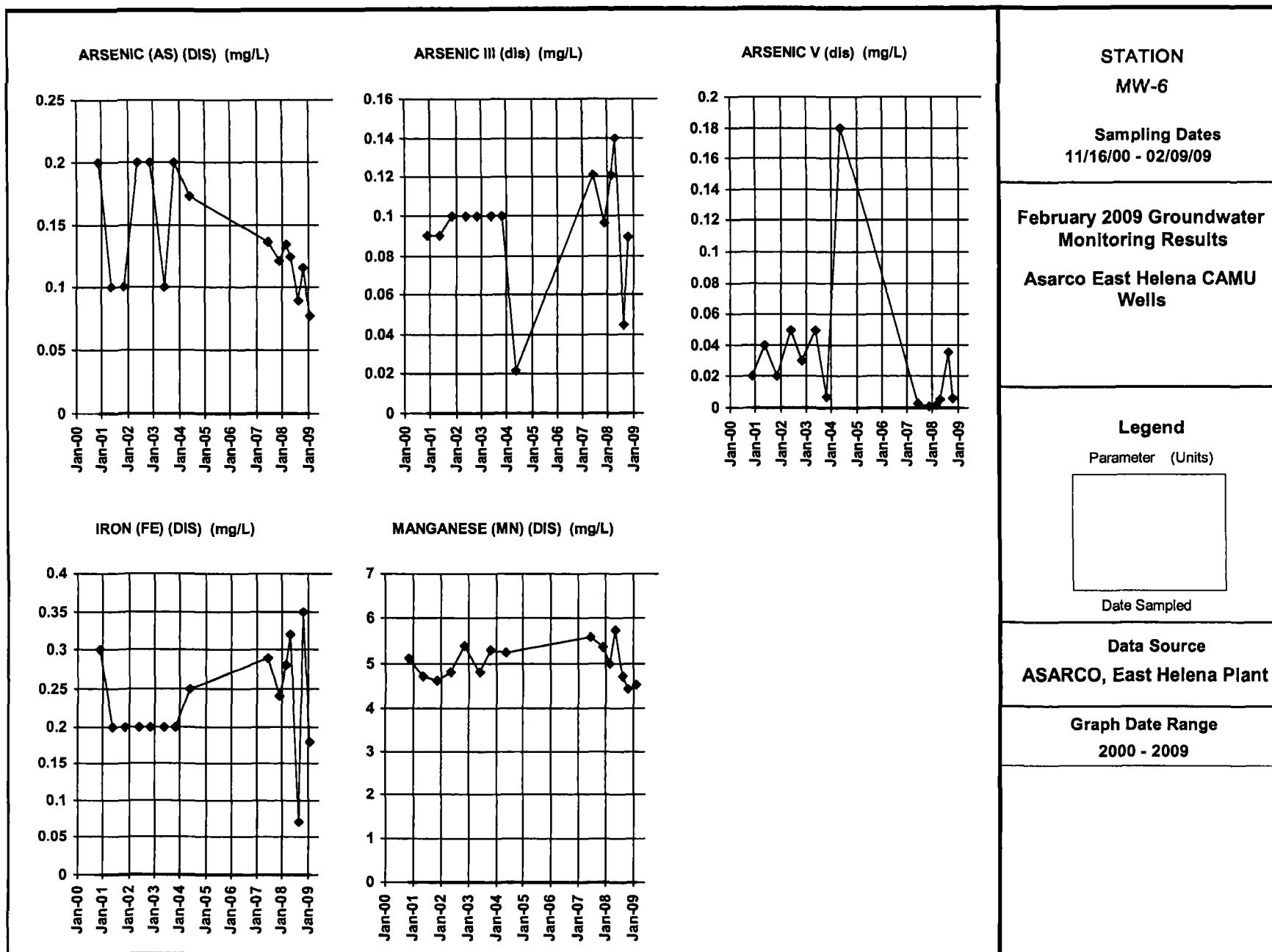


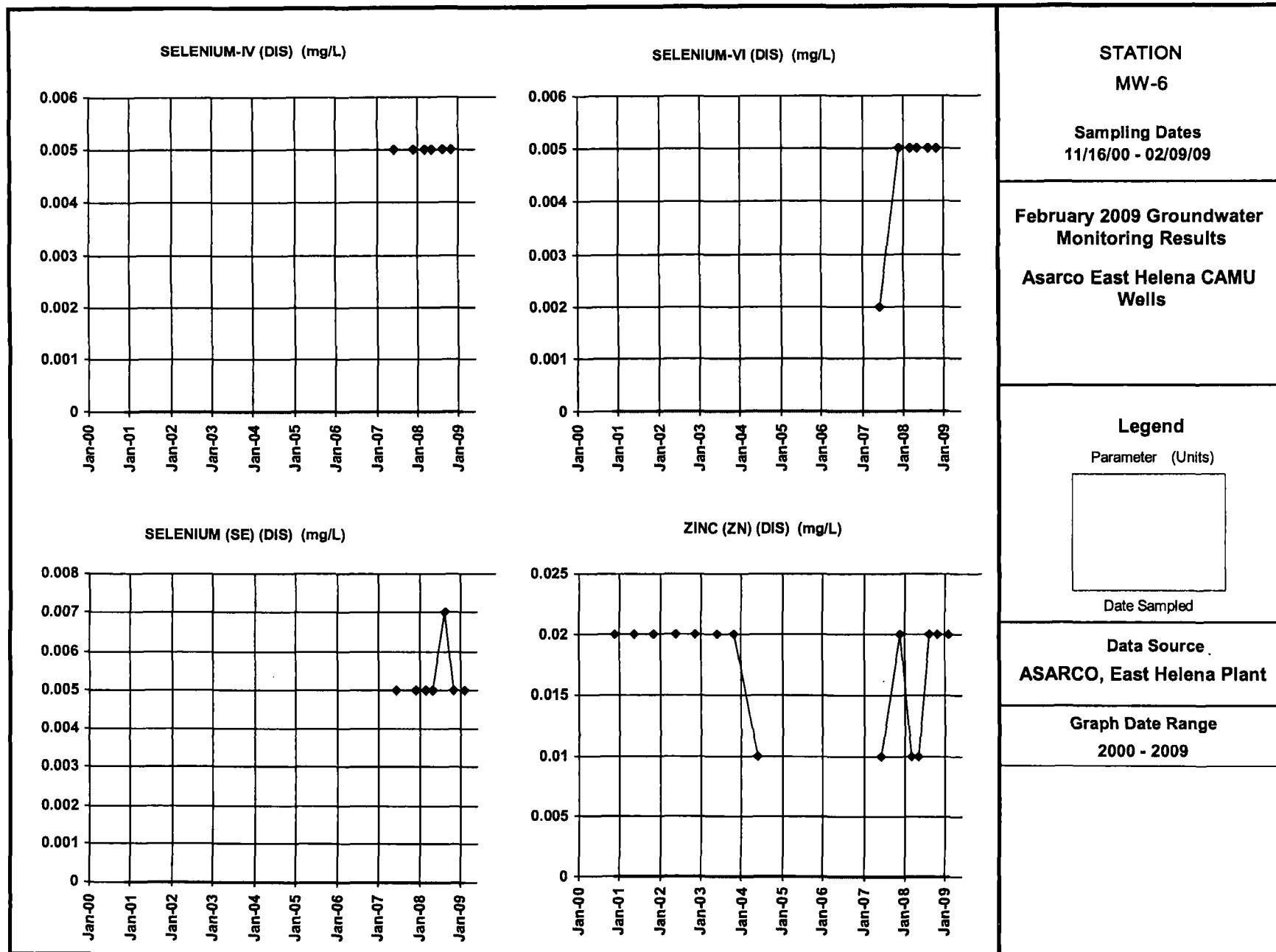


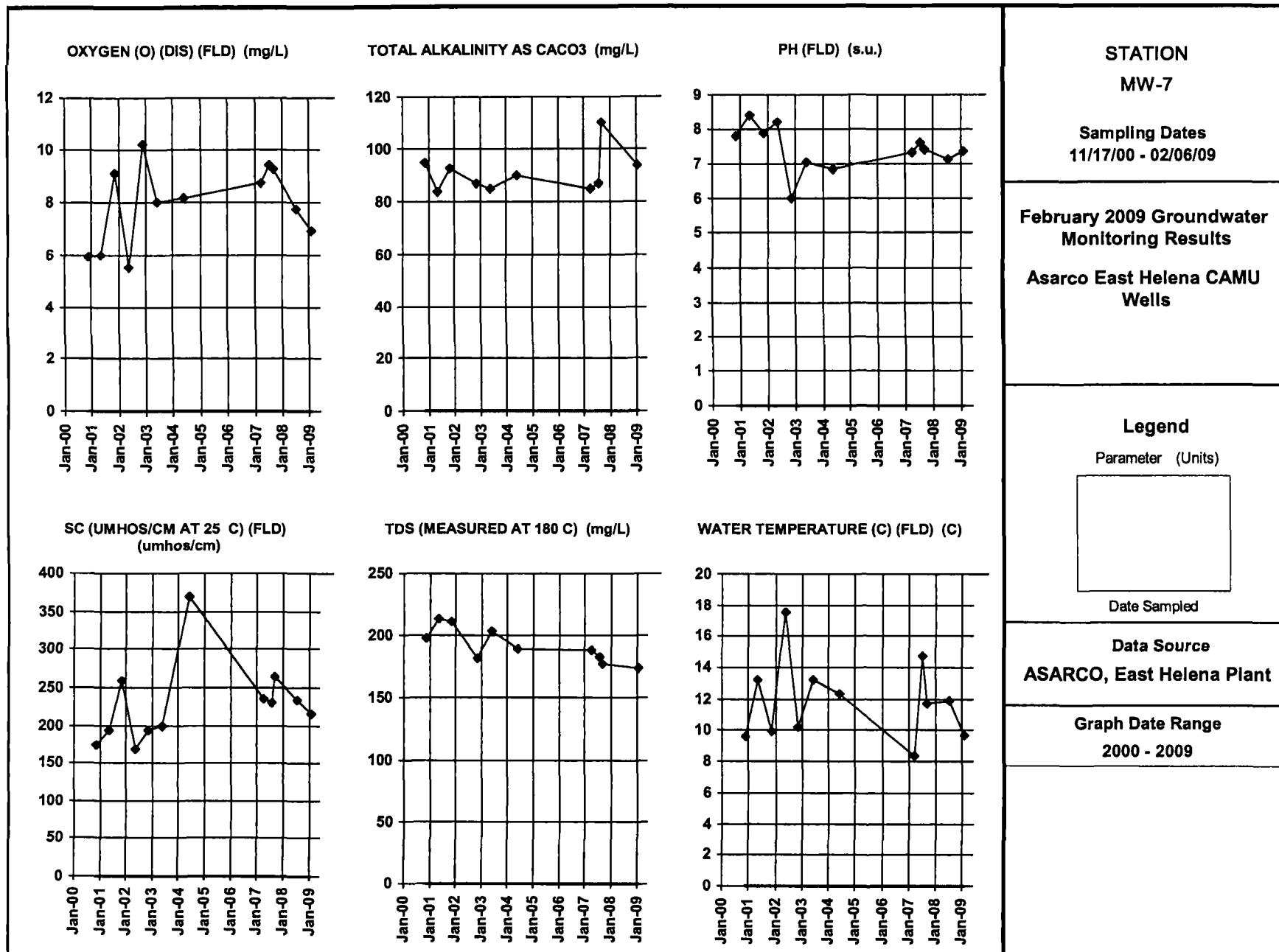


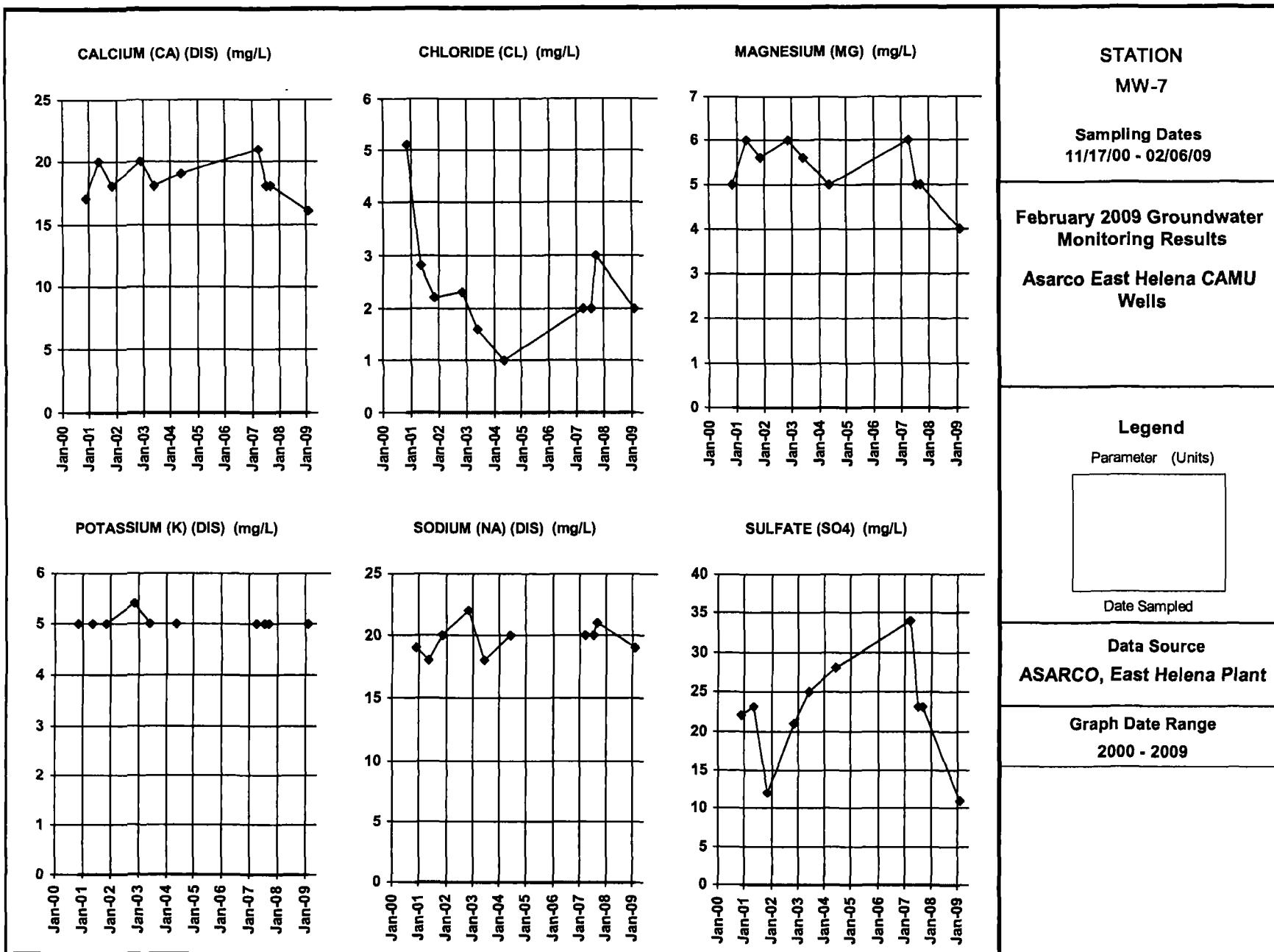


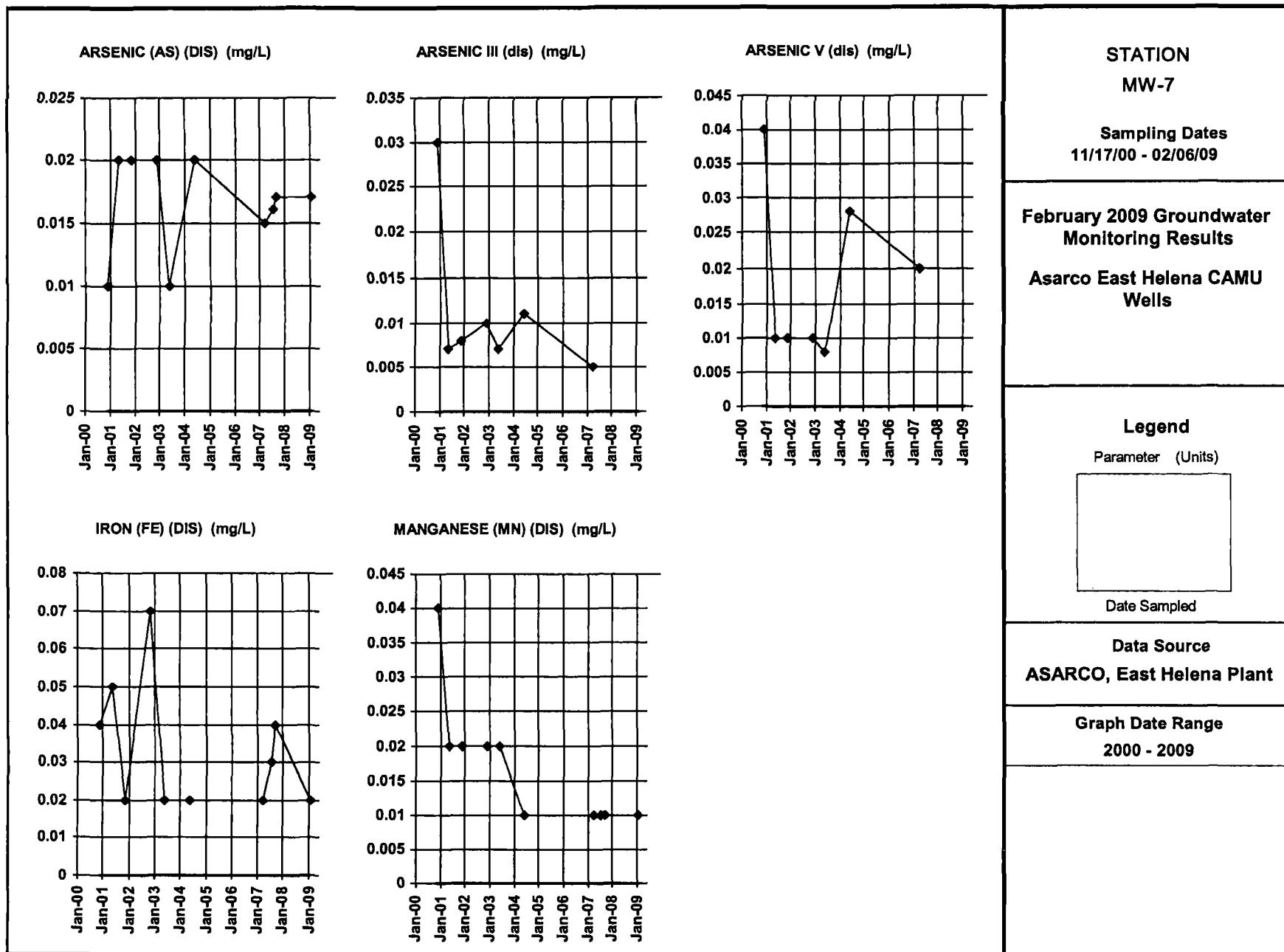


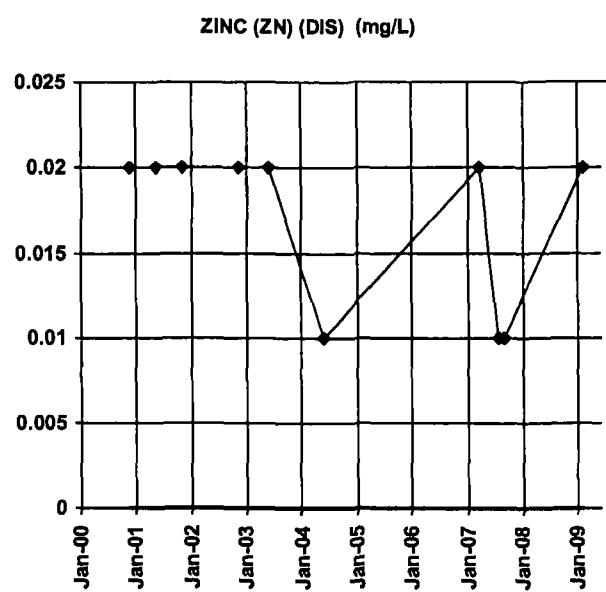
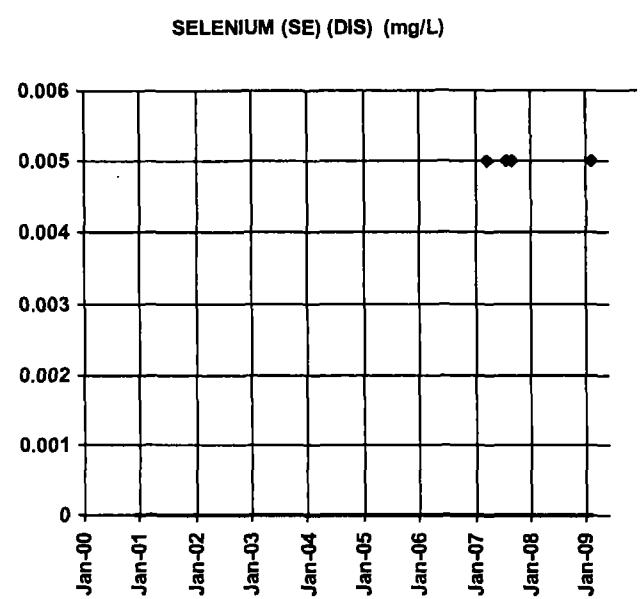












STATION
MW-7

Sampling Dates
11/17/00 - 02/06/09

February 2009 Groundwater
Monitoring Results

Asarco East Helena CAMU
Wells

Legend

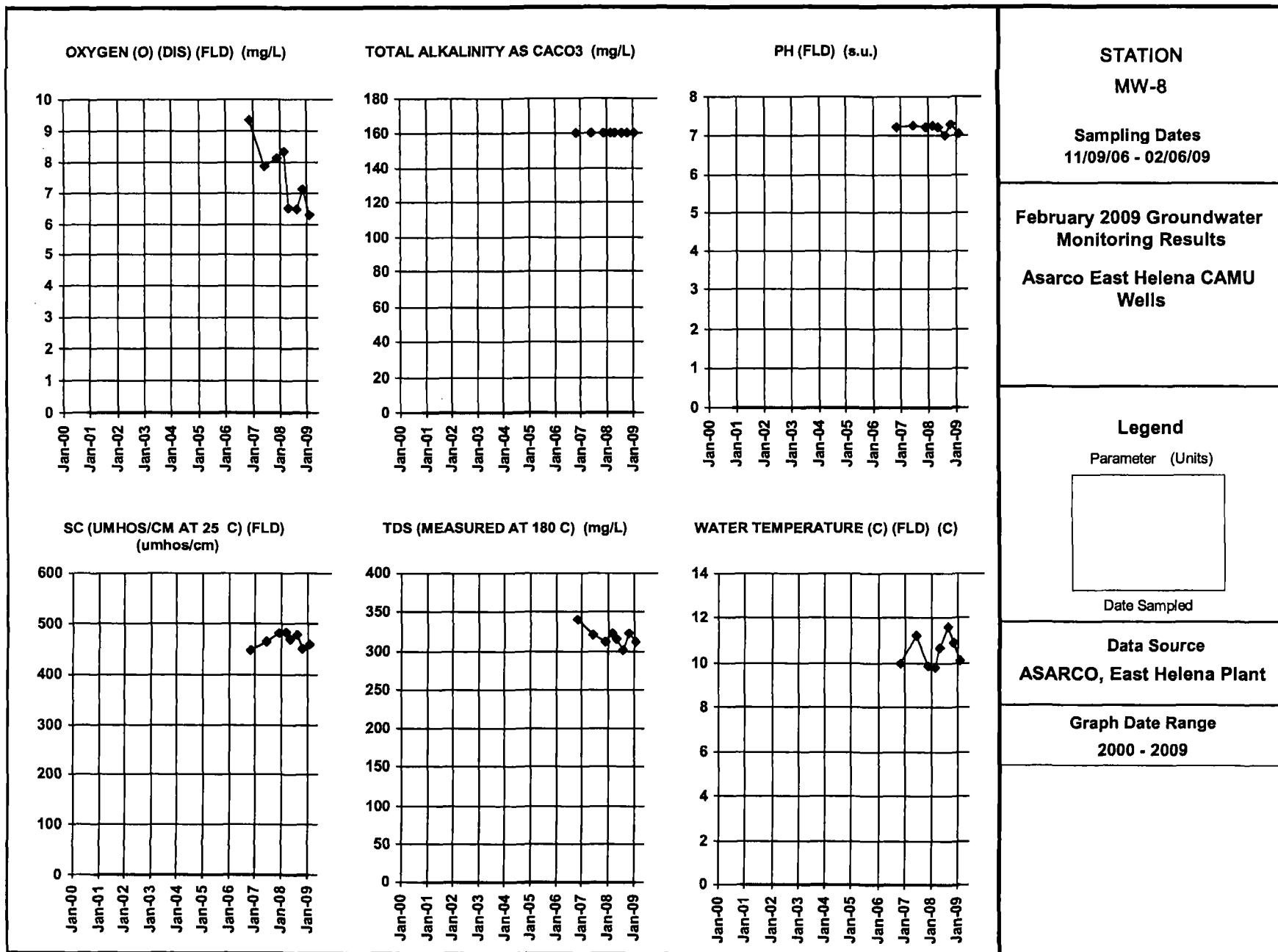
Parameter (Units)

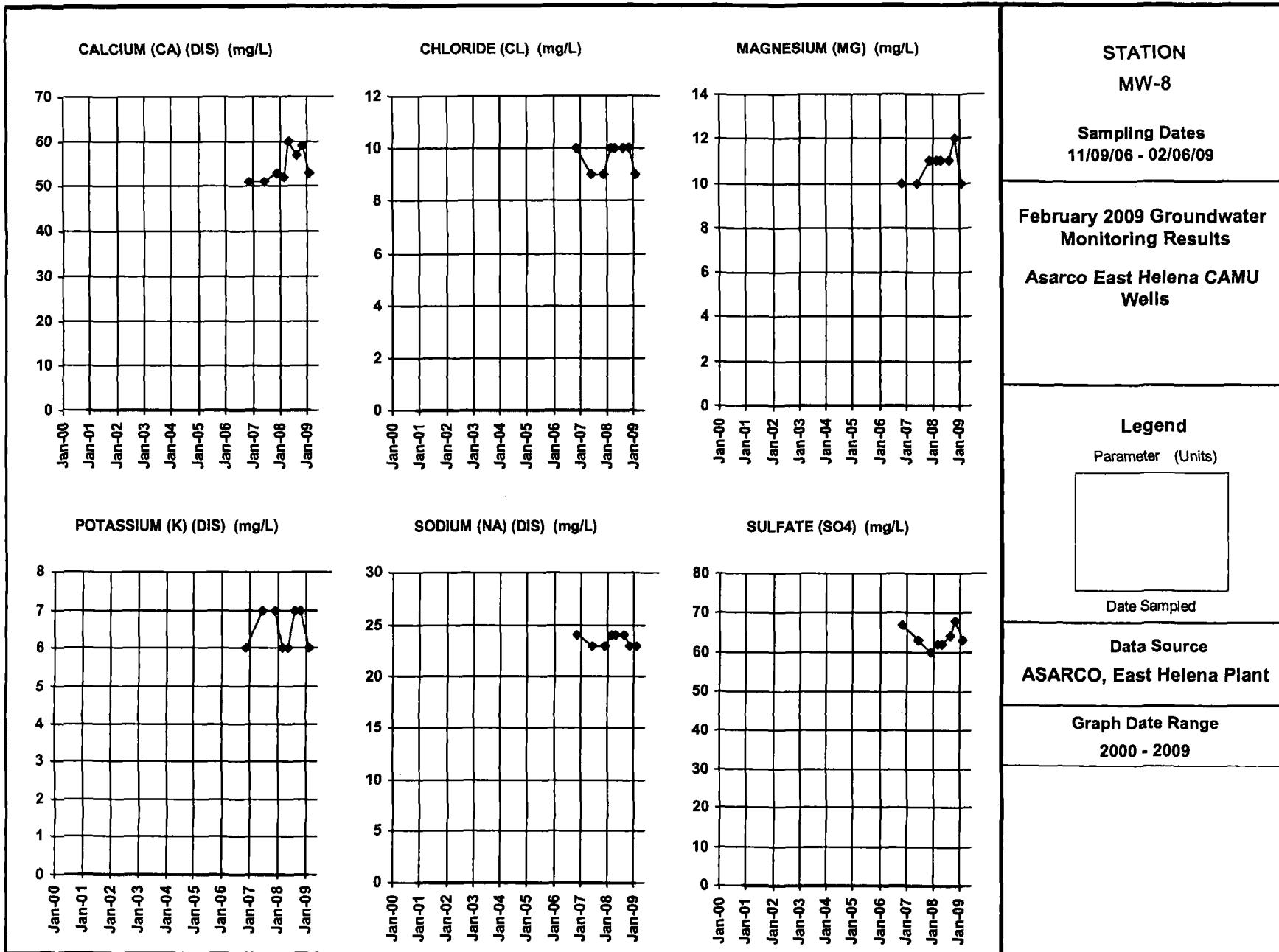


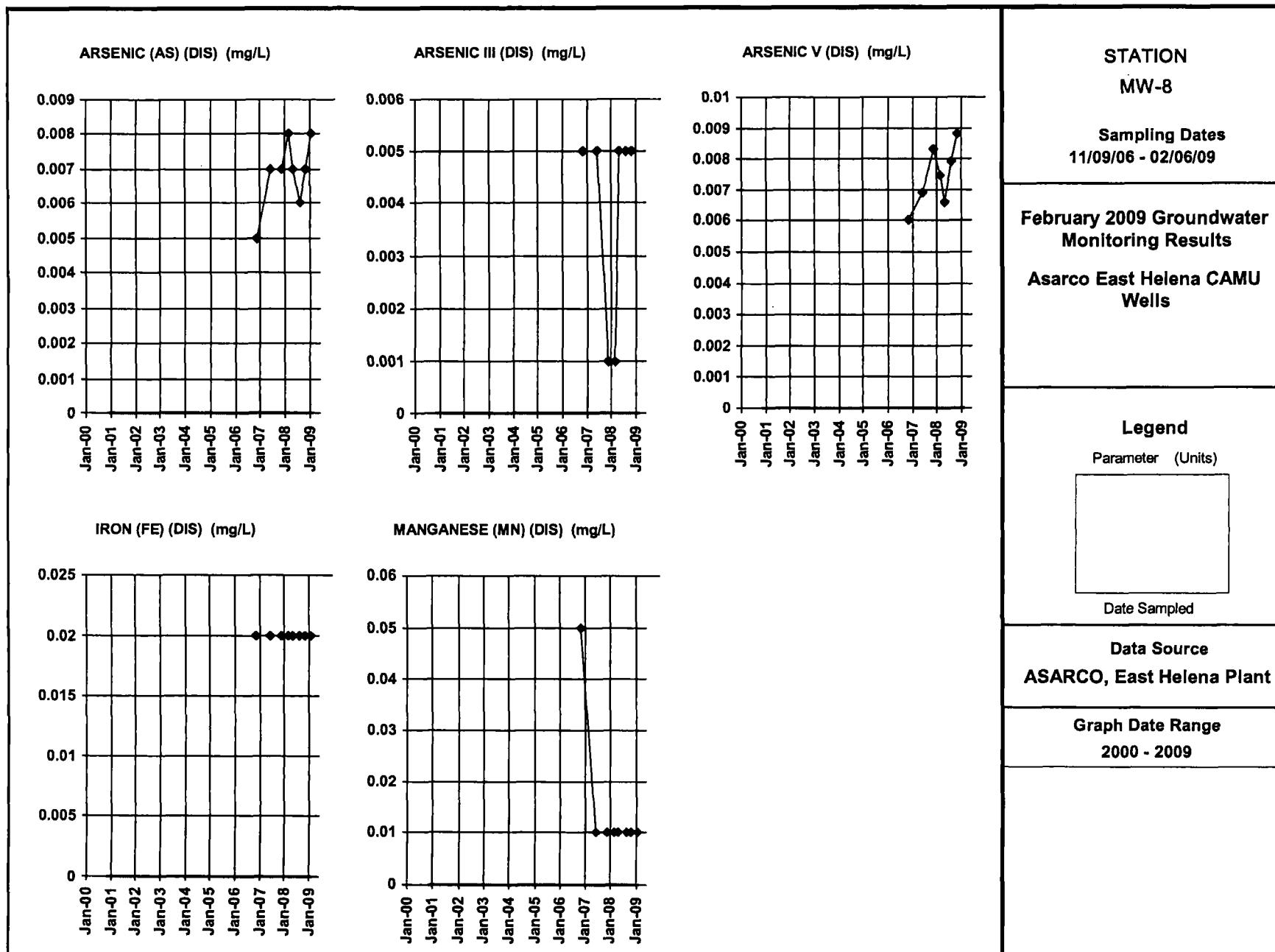
Date Sampled

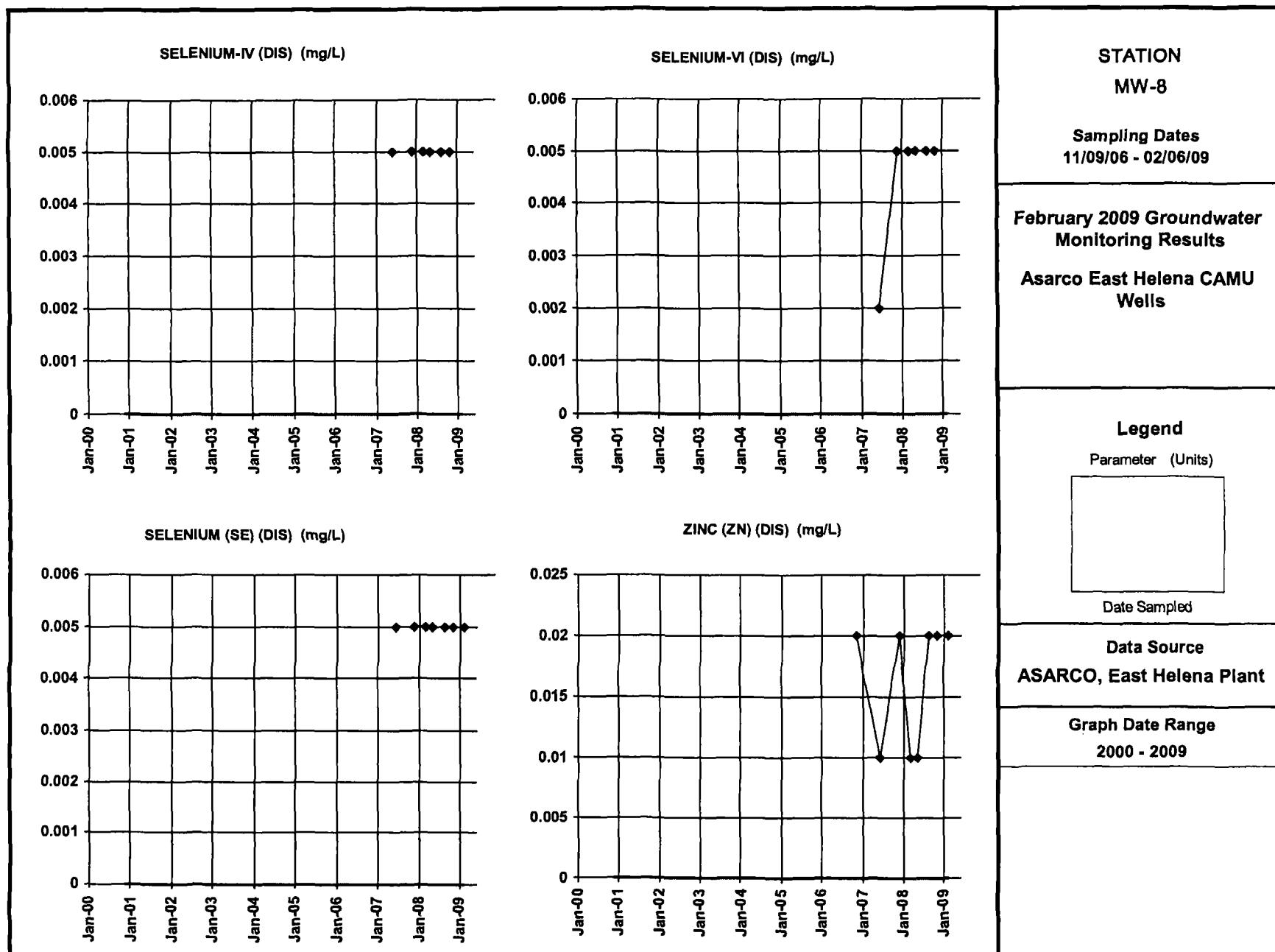
Data Source
ASARCO, East Helena Plant

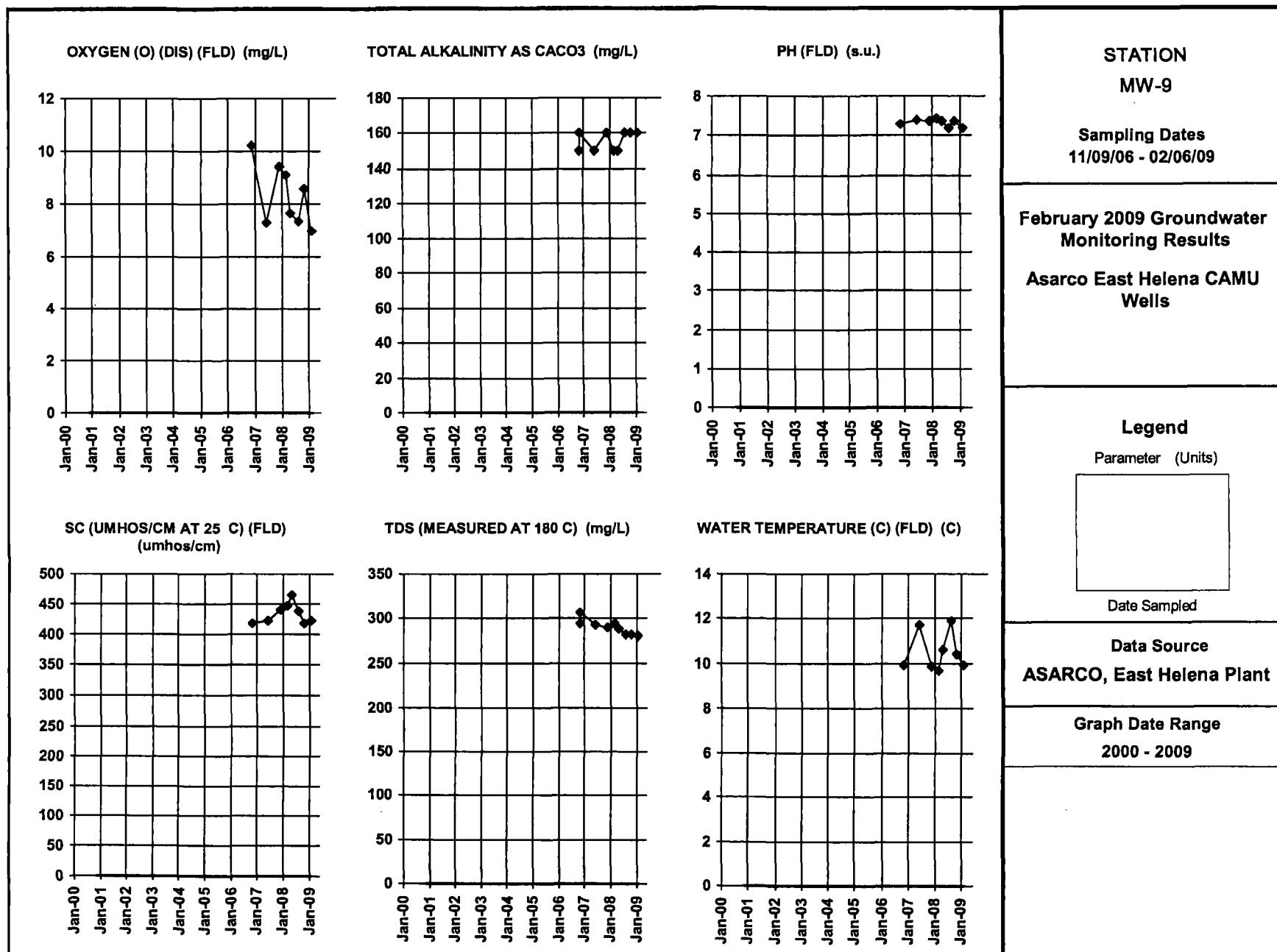
Graph Date Range
2000 - 2009

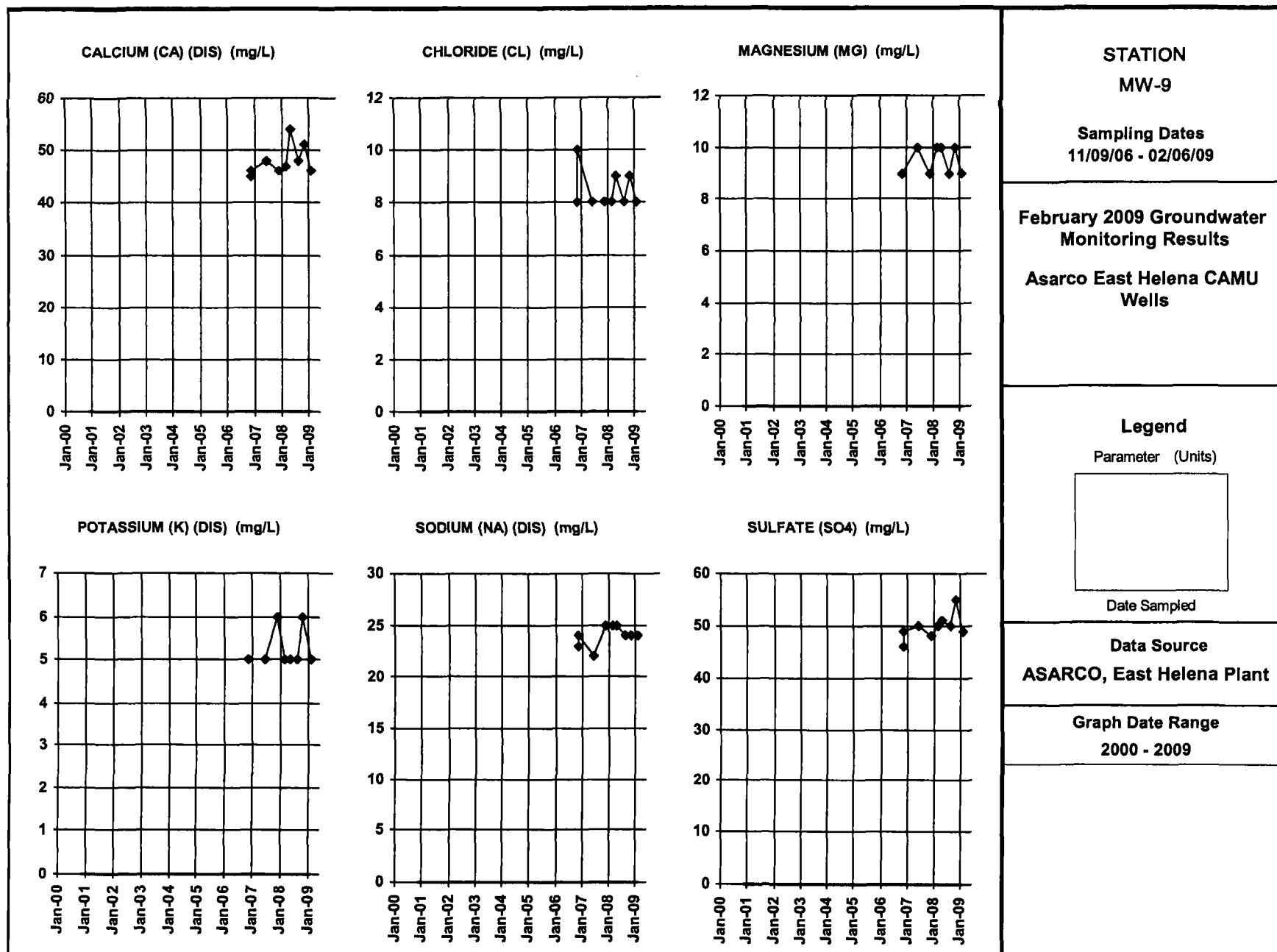


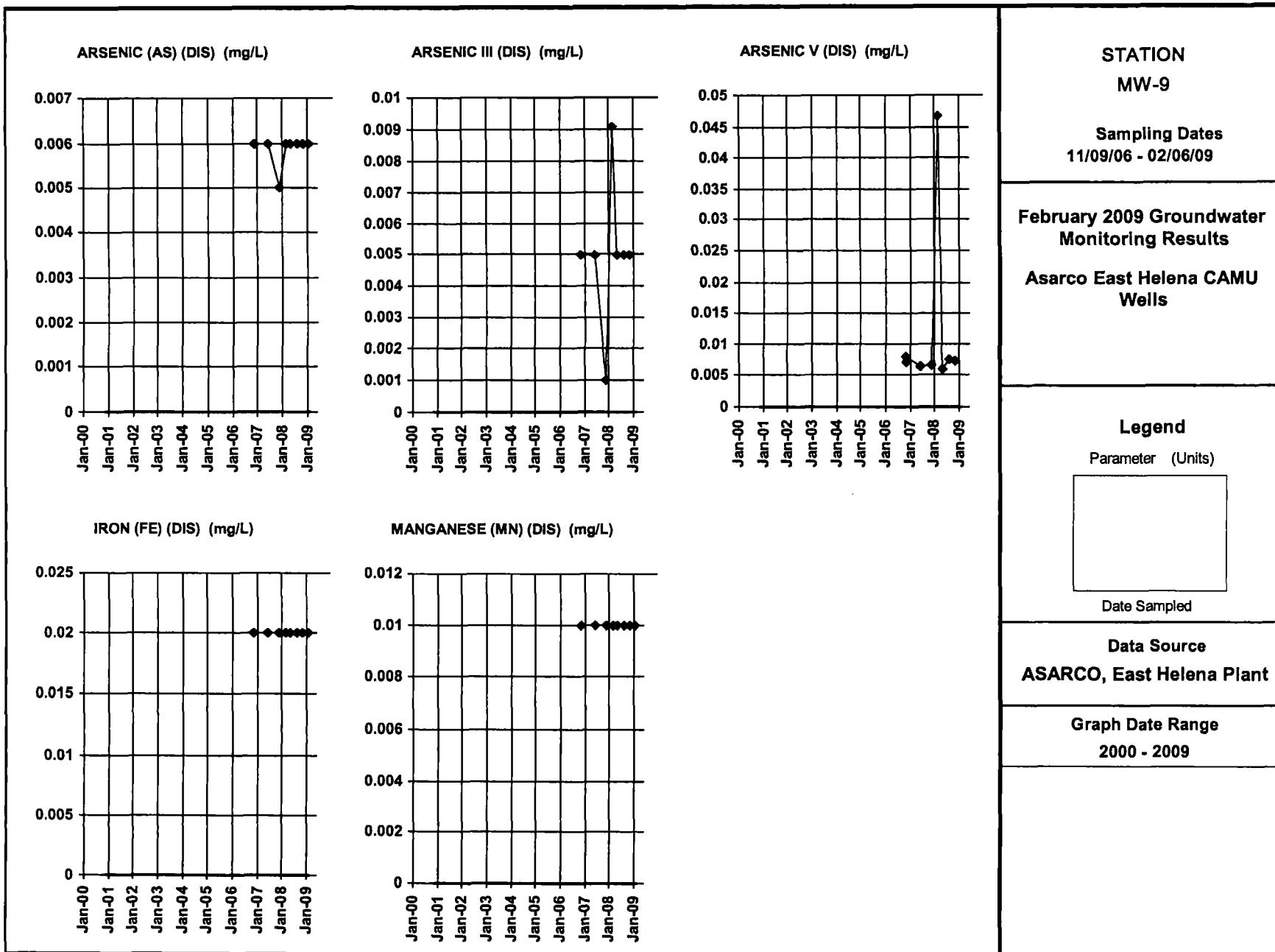


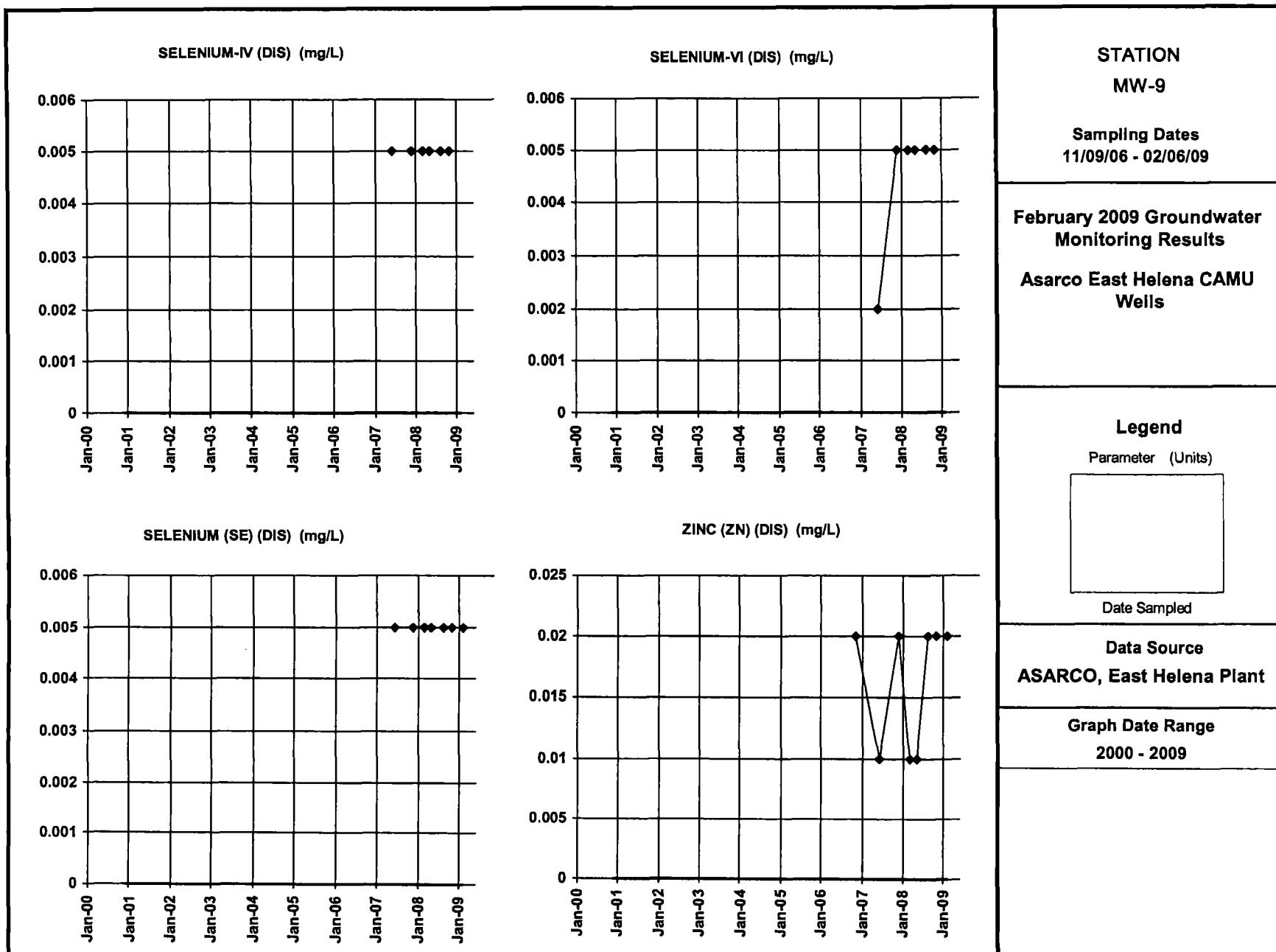


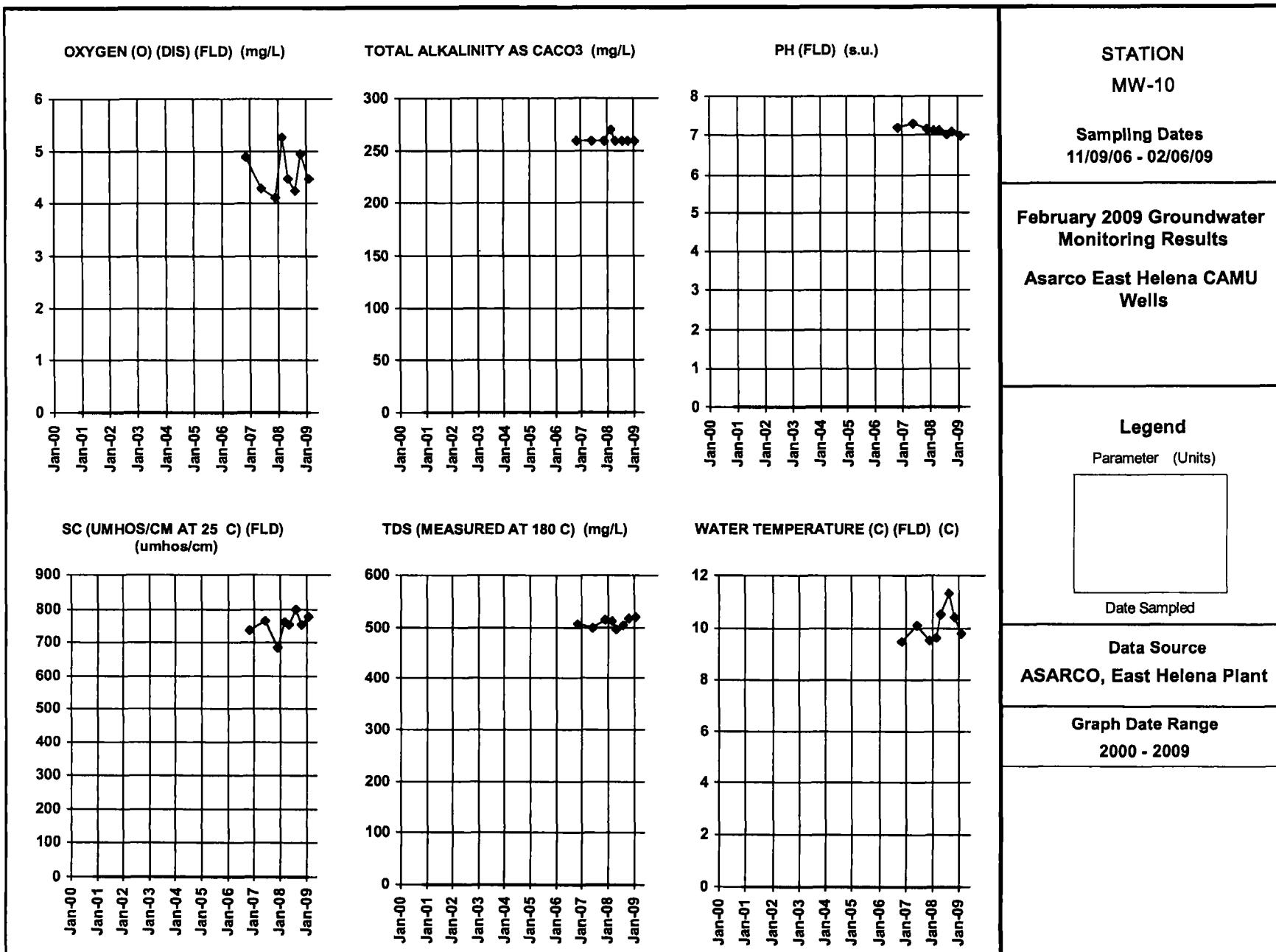


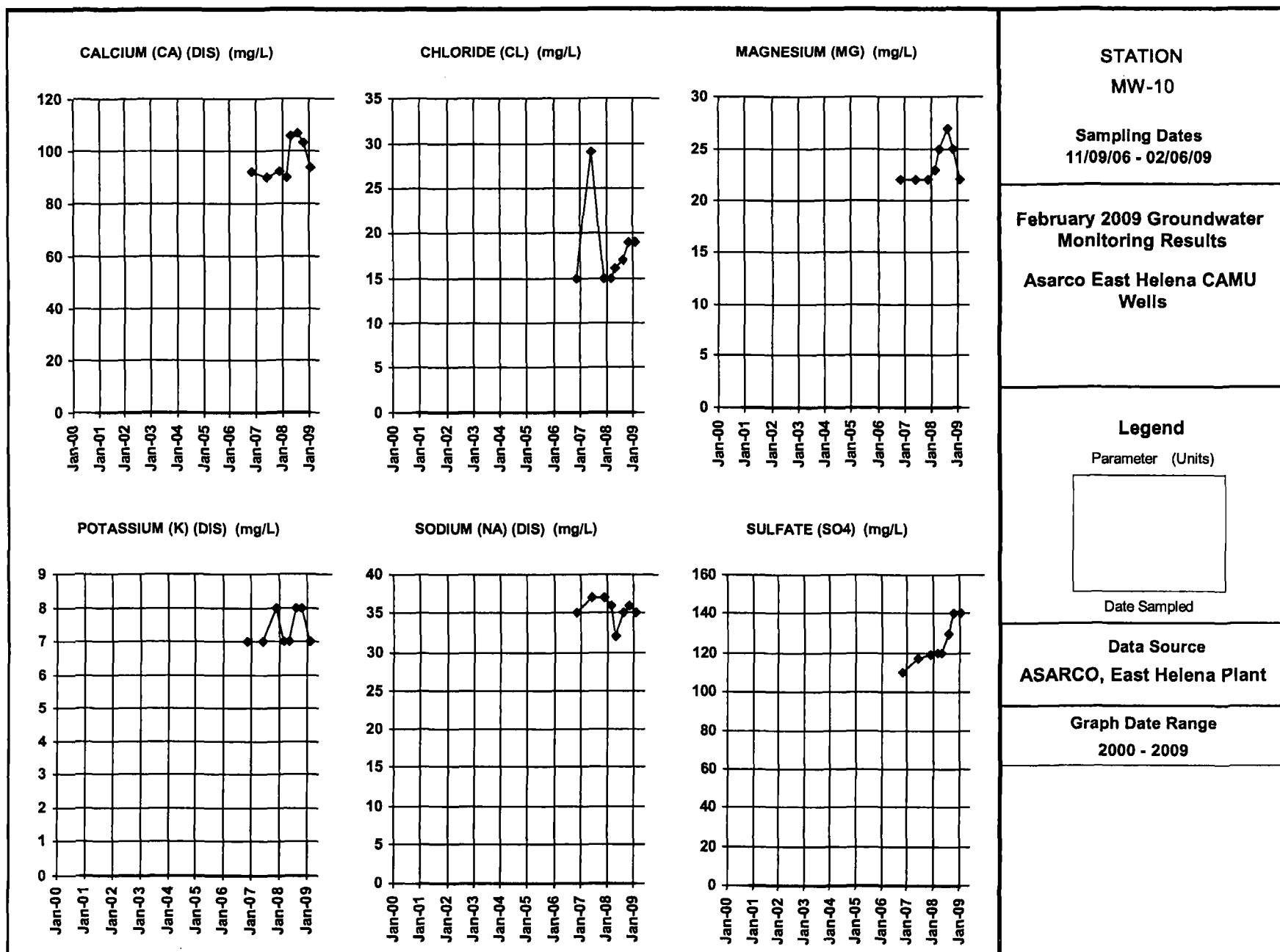


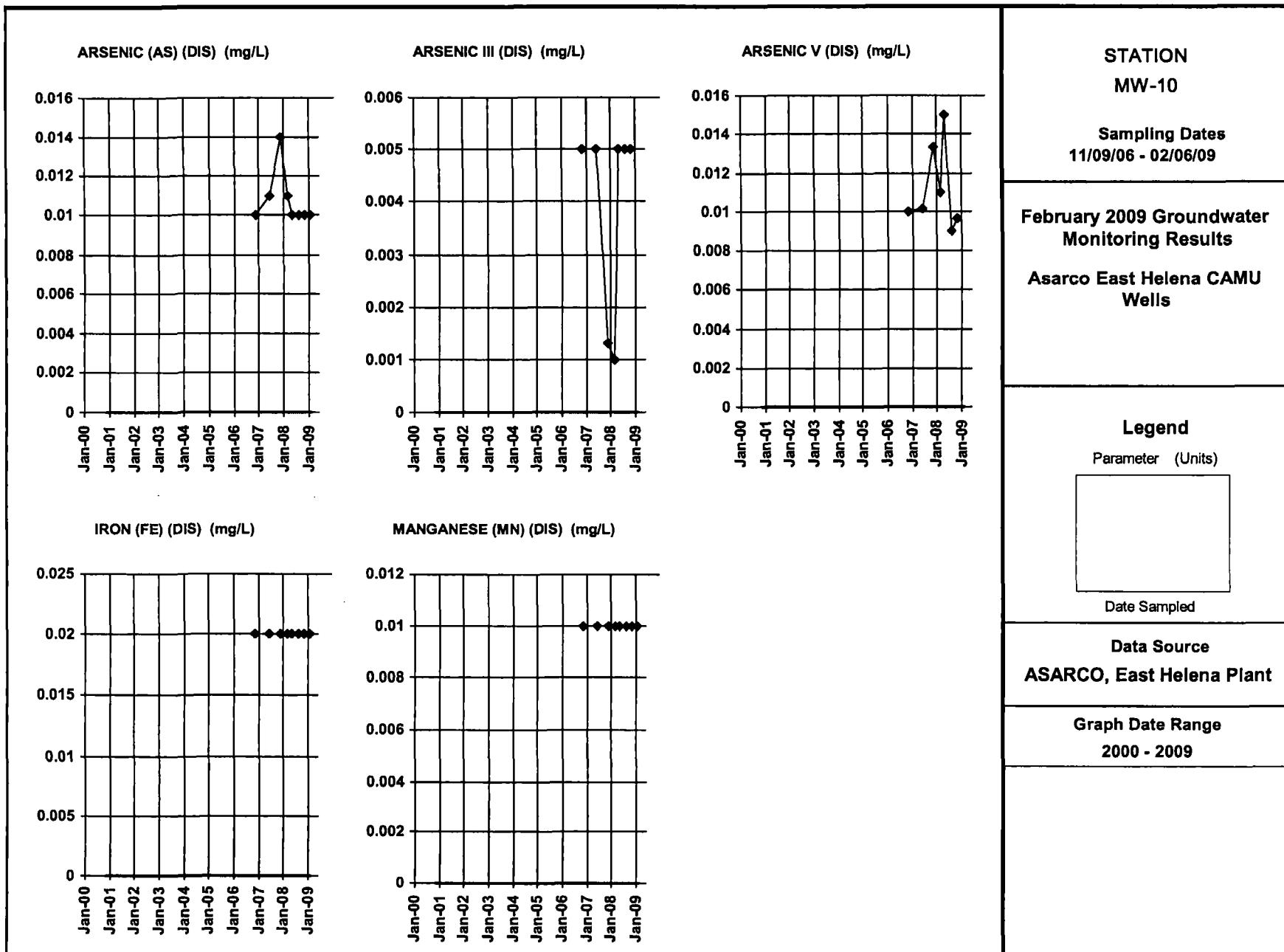


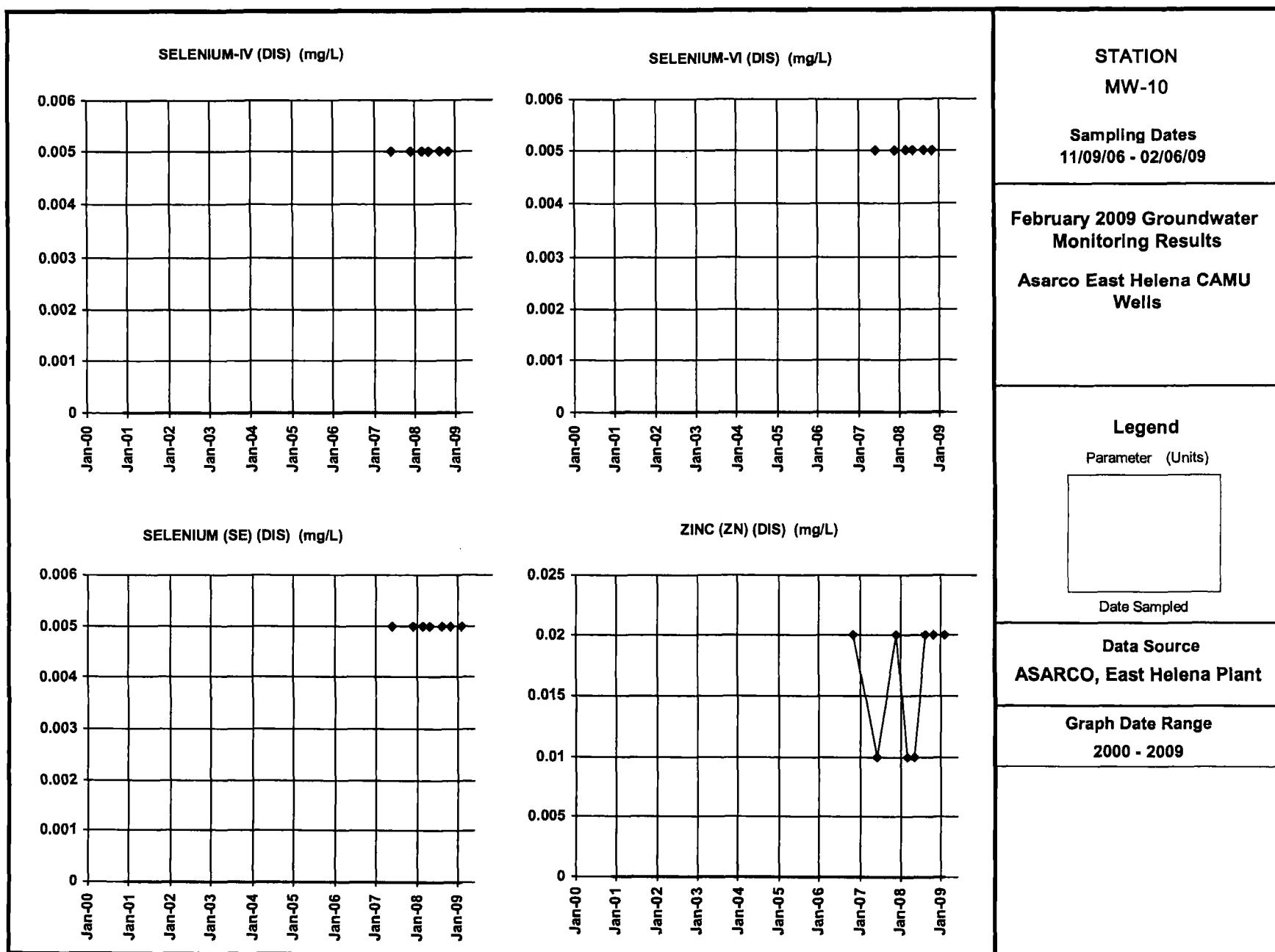


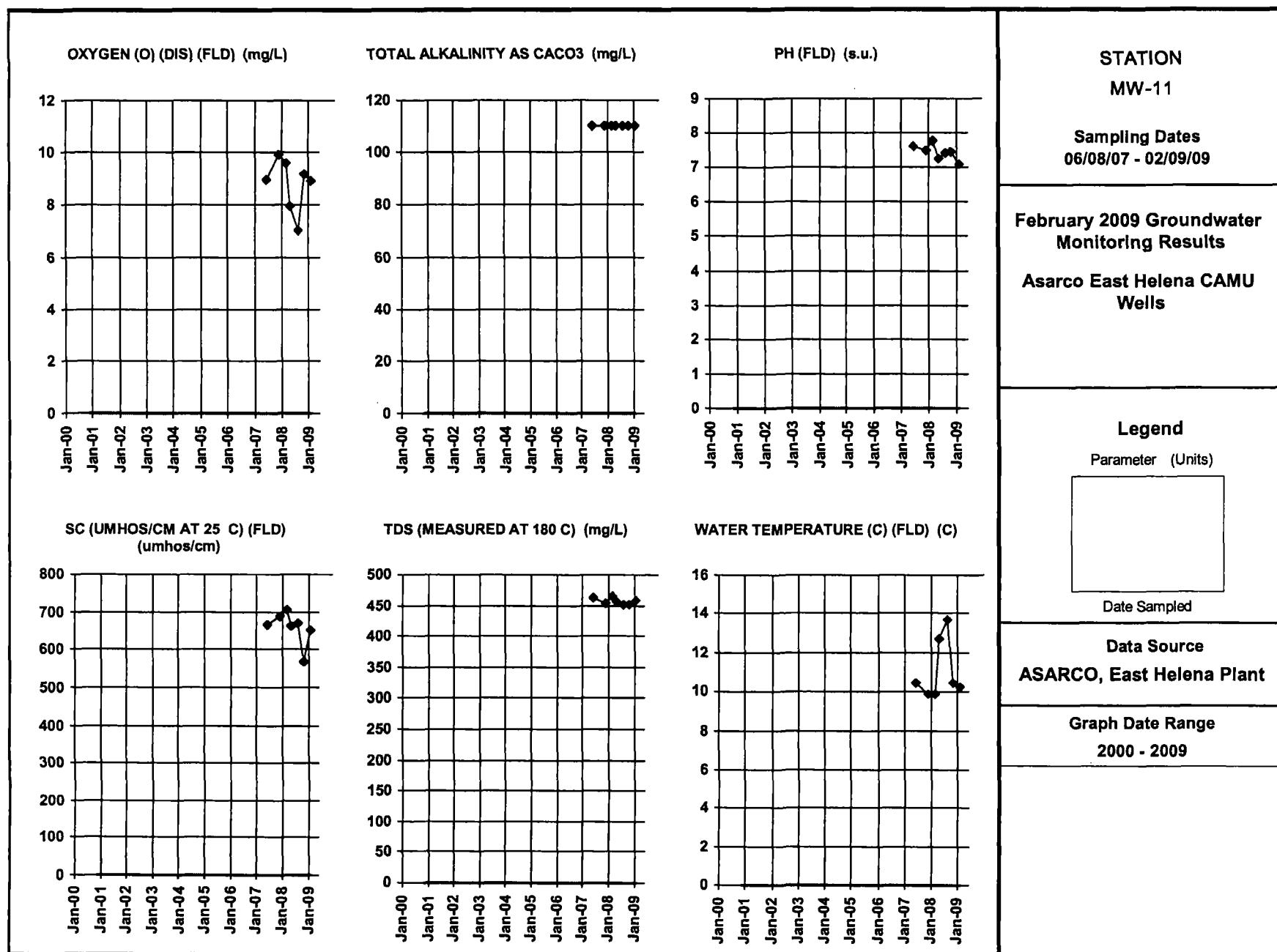


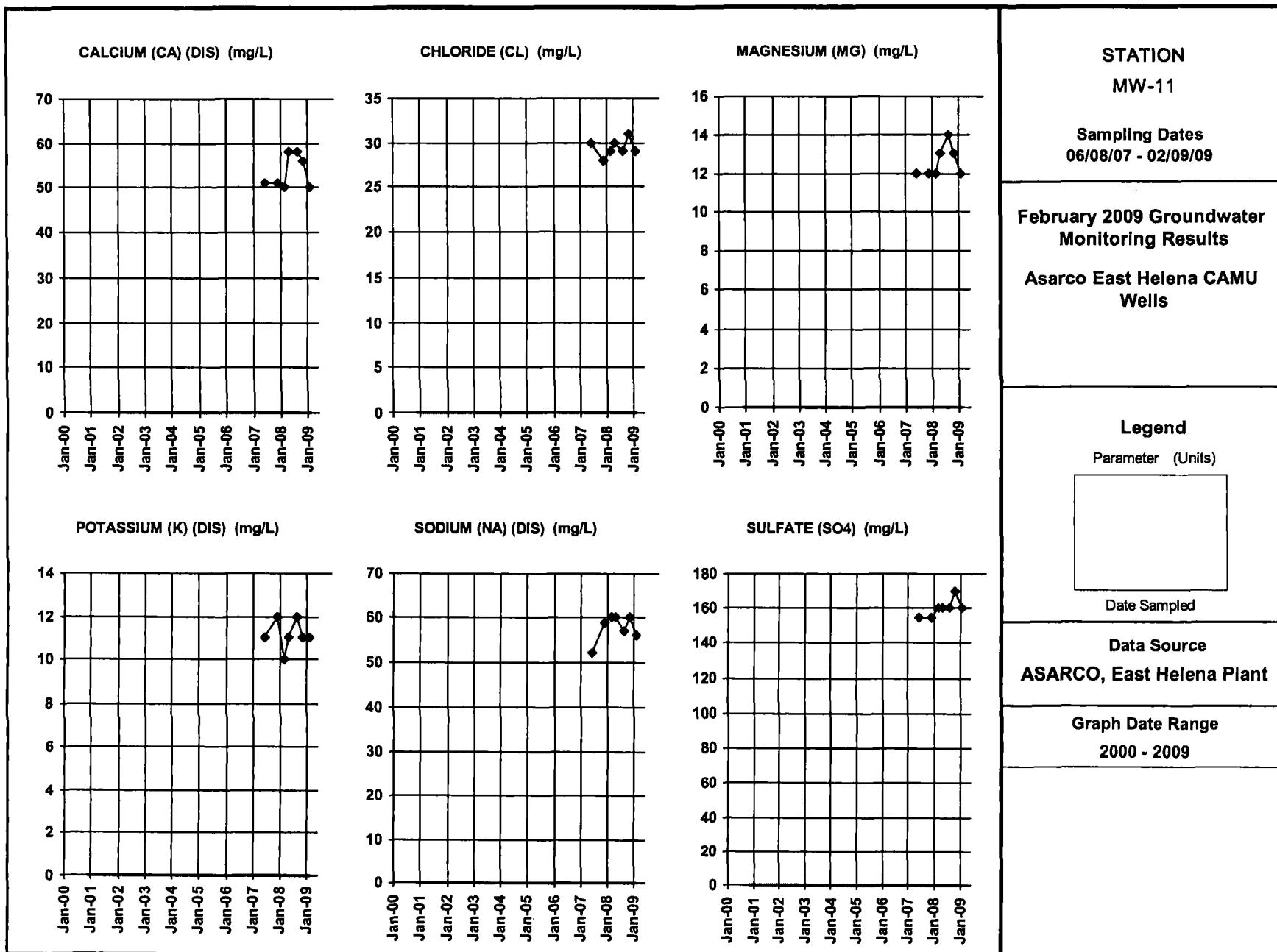


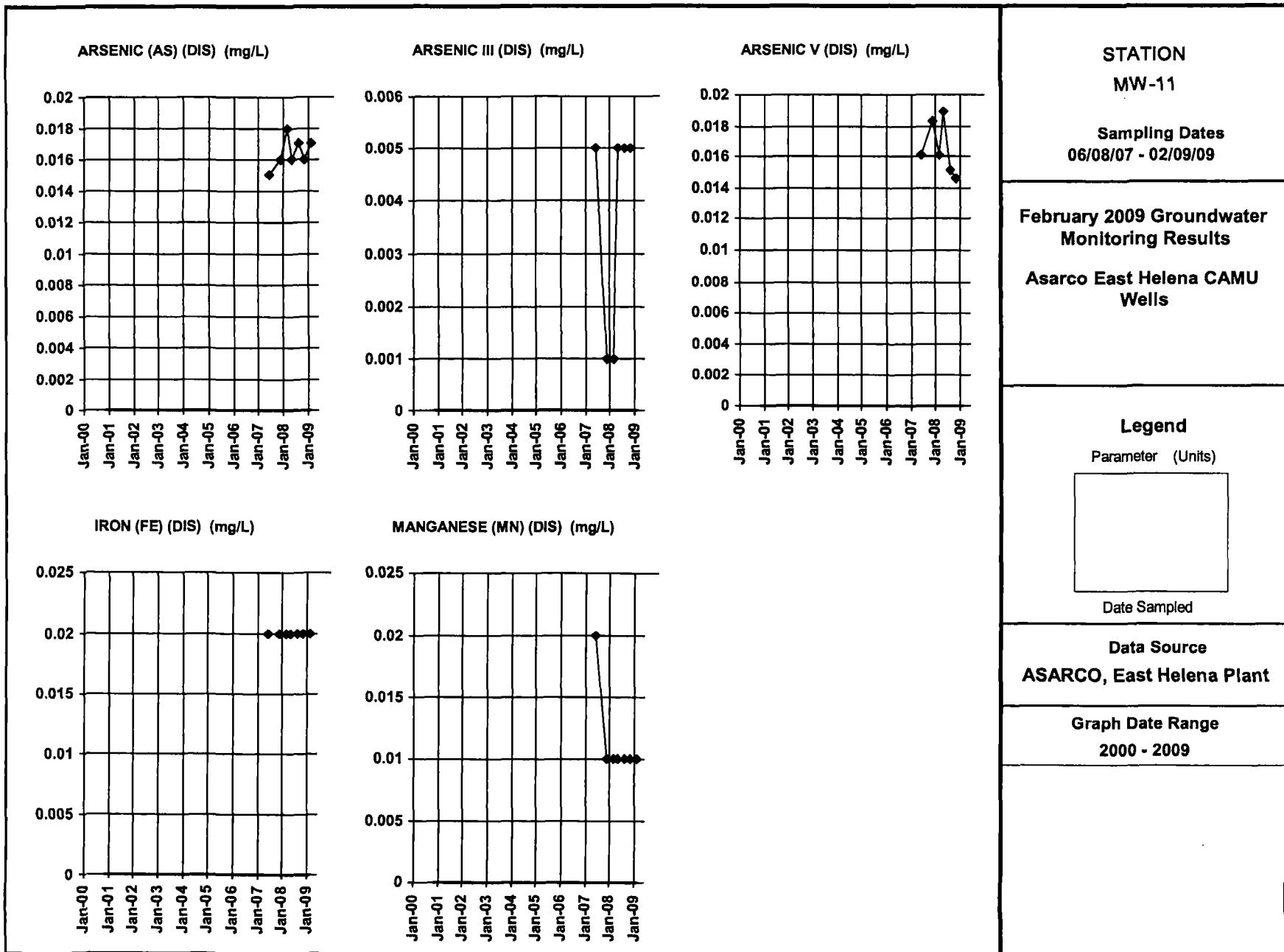












STATION

MW-11

Sampling Dates
06/08/07 - 02/09/09

February 2009 Groundwater Monitoring Results

Asarco East Helena CAMU Wells

Legend

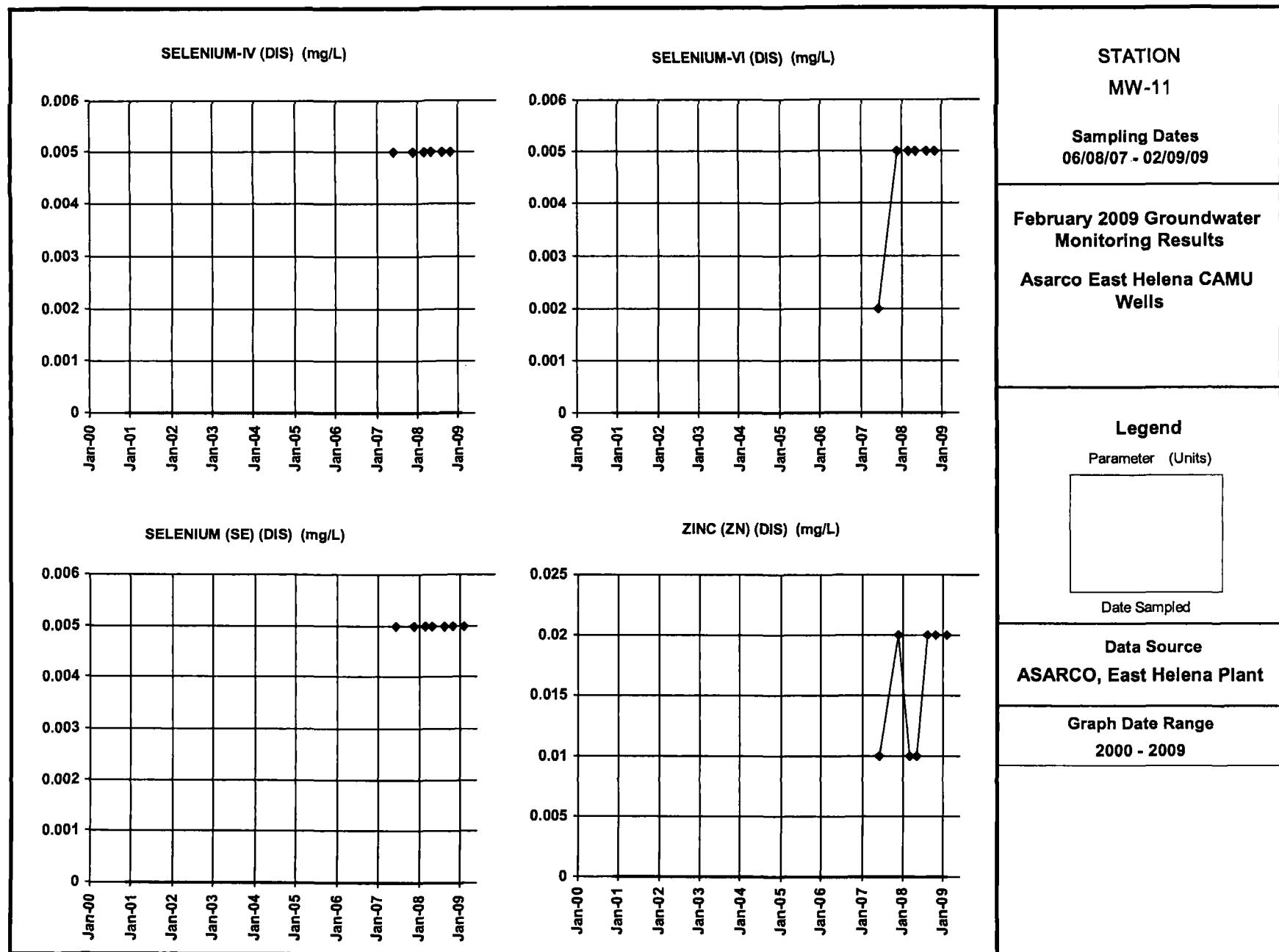
Parameter (Units)



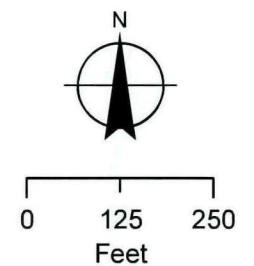
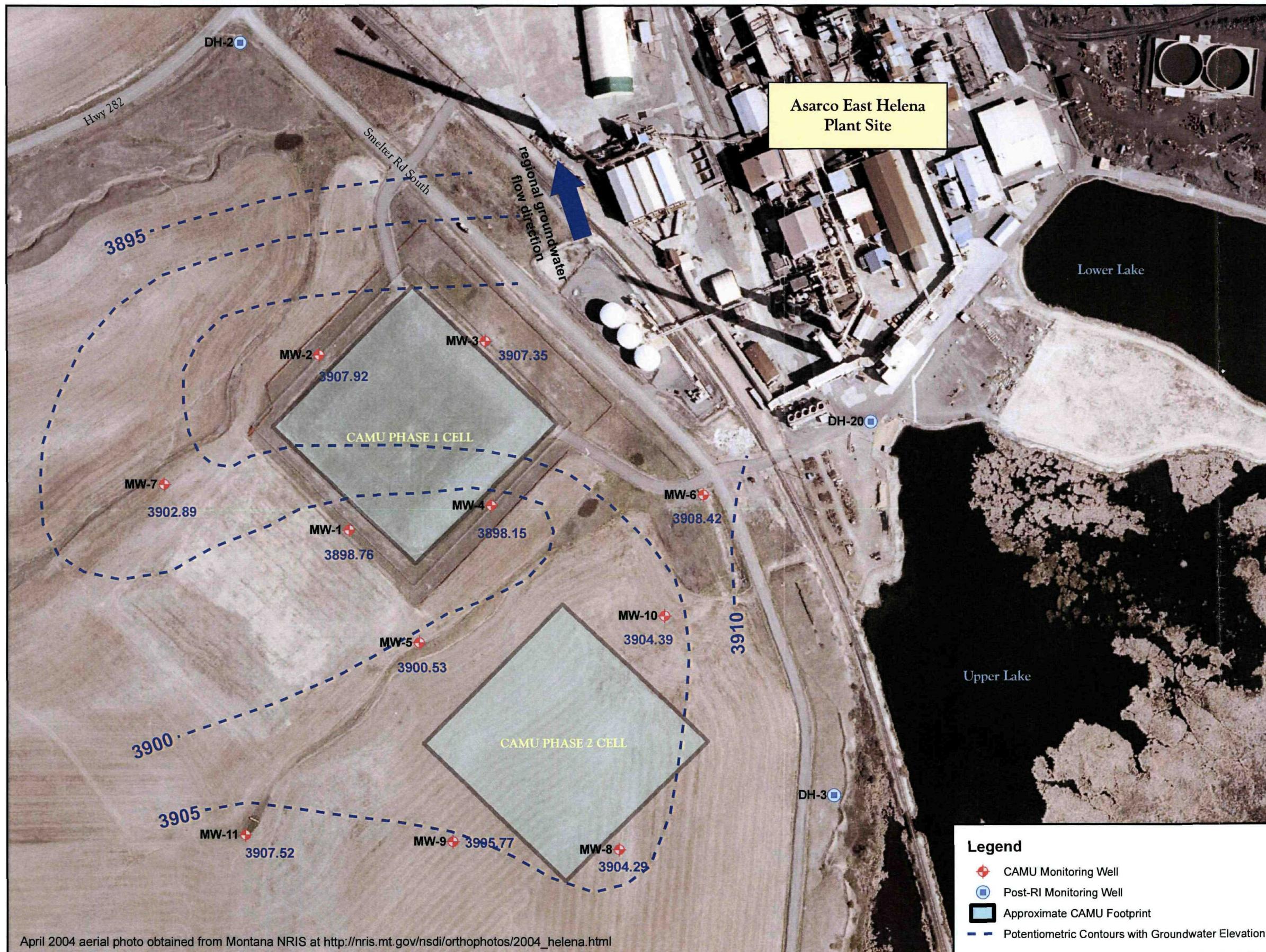
Date Sampled

Data Source
ASARCO, East Helena Plant

Graph Date Range
2000 - 2009



FEBRUARY 2009 POTENTIOMETRIC MAP
ASARCO EAST HELENA CAMU MONITORING WELLS

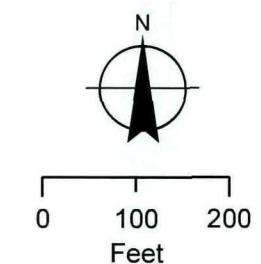
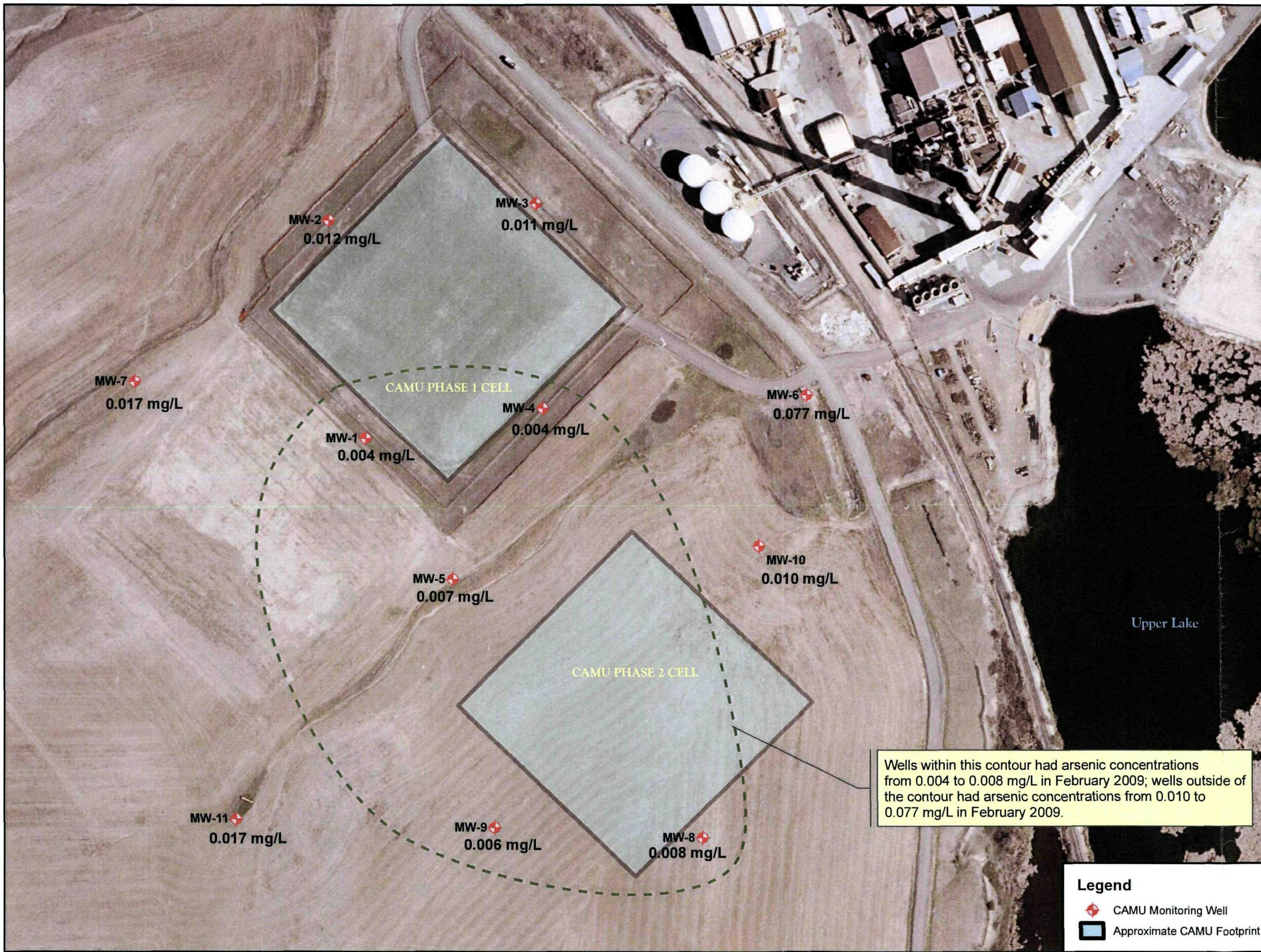


NOTES:

- (1) Water levels at Post-RI Monitoring Wells, Upper Lake, and Lower Lake measured on a semiannual basis, and are therefore not available for this monitoring event.
- (2) Water levels in the Tertiary volcanic ash unit intercepted by CAMU monitoring wells do not appear to indicate a continuous hydraulically connected system.

February 2009
Groundwater Elevations
Asarco East Helena
CAMU Monitoring Wells

FEBRUARY 2009 DISSOLVED ARSENIC CONCENTRATION MAP
ASARCO EAST HELENA CAMU MONITORING WELLS



**February 2009 Dissolved Arsenic Concentration Map
Asarco East Helena
CAMU Area Monitoring Wells**

FEBRUARY 2009 DISSOLVED MANGANESE CONCENTRATION MAP
ASARCO EAST HELENA CAMU MONITORING WELLS



February 2009 Dissolved Manganese
Concentration Map
Asarco East Helena
CAMU Area Monitoring Wells

FEBRUARY 2009 MANN-KENDALL TREND TEST RESULTS
ASARCO EAST HELENA CAMU MONITORING WELLS

FEBRUARY 2009 MANN-KENDALL TREND TEST RESULTS
ASARCO EAST HELENA CAMU WELL GROUNDWATER DATA

Well	Statistic	Arsenic (Dissolved)	Iron (Dissolved)	Manganese (Dissolved)	Selenium (Dissolved)
MW-1	Trend	None	None	None	NT
	Z-score	-1.36	-1.63	-0.173	
	p-value	0.172	0.103	0.862	
MW-2	Trend	None	None	Decreasing	NT
	Z-score	1.52	-1.26	-3.81	
	p-value	0.129	0.209	0.0001	
MW-3	Trend	None	None	None	None
	Z-score	2.33	-0.800	2.05	-1.07
	p-value	0.020	0.424	0.040	0.286
MW-4	Trend	None	None	NT	None
	Z-score	2.10	0.094		-1.25
	p-value	0.036	0.925		0.211
MW-5	Trend	None	None	None	NT
	Z-score	0.185	-1.85	-1.55	
	p-value	0.85	0.063	0.121	
MW-6	Trend	None	None	None	None
	Z-score	-1.96	0.667	0.050	0.250
	p-value	0.050	0.505	0.961	0.803
MW-7	Trend	None	None	None	NT
	Z-score	0.00	0.00	-1.39	
	p-value	1.00	1.00	0.164	
MW-8	Trend	None	NT	None	NT
	Z-score	1.07		-1.31	
	p-value	0.283		0.190	
MW-9	Trend	None	NT	NT	NT
	Z-score	0.436		NT	
	p-value	0.663		NT	
MW-10	Trend	None	NT	NT	NT
	Z-score	1.16		NT	
	p-value	0.247		NT	
MW-11	Trend	None	NT	None	NT
	Z-score	0.953		-1.25	
	p-value	0.341		0.211	

NOTES: Two-sided test for trend performed at 99% confidence level ($\alpha = 0.01$).

Critical Z-score = 2.57 (if $|Z| > 2.57$, then $p < 0.01$ and trend is significant).

NT = not tested (all data below laboratory reporting limits).

FEBRUARY 2009 SEASONAL MANN-KENDALL TREND TEST RESULTS
ASARCO EAST HELENA CAMU MONITORING WELLS

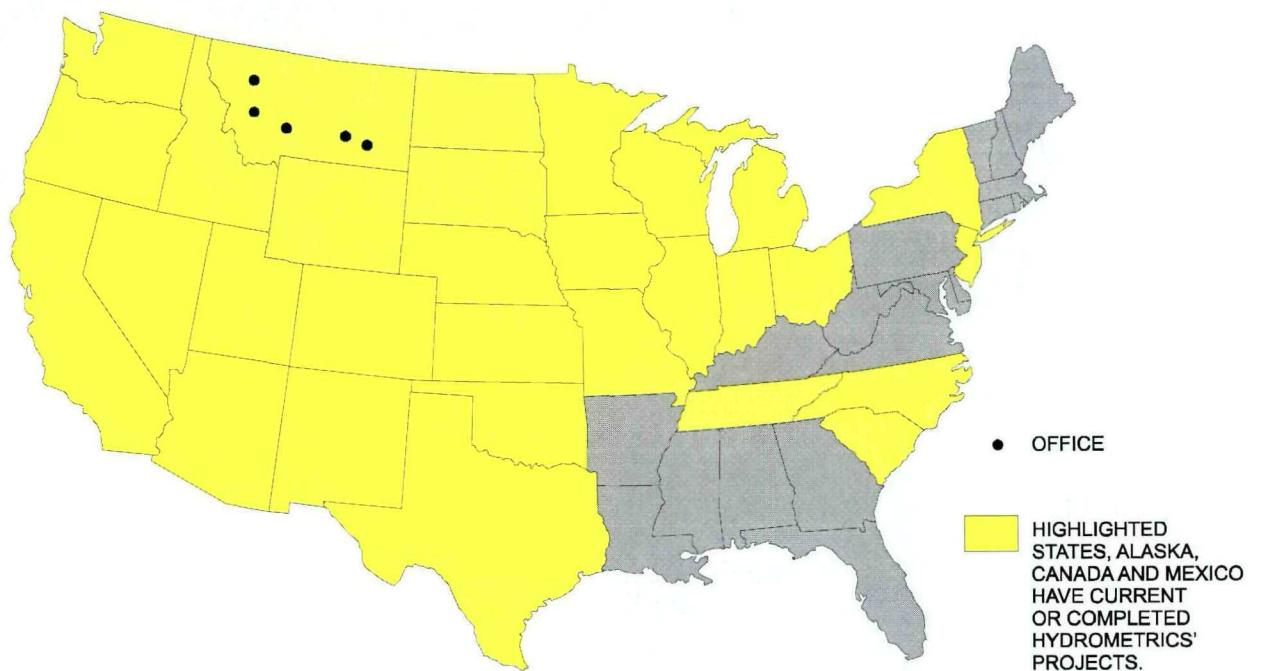
FEBRUARY 2009 SEASONAL MANN-KENDALL TREND TEST RESULTS
ASARCO EAST HELENA CAMU WELL GROUNDWATER DATA

Well	Statistic	Arsenic (Dissolved)	Iron (Dissolved)	Manganese (Dissolved)	Selenium (Dissolved)
MW-1	Trend	None	None	None	NT
	Z-score	-0.699	-1.25	0.00	
	p-value	0.485	0.210	1.00	
MW-2	Trend	None	None	Decreasing	NT
	Z-score	1.59	-0.869	-3.25	
	p-value	0.111	0.385	0.0012	
MW-3	Trend	None	None	None	None
	Z-score	1.77	-1.52	1.74	0.00
	p-value	0.078	0.128	0.082	1.00
MW-4	Trend	None	None	NT	None
	Z-score	2.29	-0.603		0.00
	p-value	0.022	0.546		1.00
MW-5	Trend	None	None	None	NT
	Z-score	0.00	-1.64	-1.31	
	p-value	1.00	0.100	0.190	
MW-6	Trend	None	None	None	None
	Z-score	-0.549	1.97	1.46	0.00
	p-value	0.583	0.049	0.144	1.00
MW-7	Trend	None	None	None	NT
	Z-score	0.795	0.463	-0.612	
	p-value	0.427	0.643	0.540	
MW-8	Trend	None	NT	None	NT
	Z-score	0.612		-0.612	
	p-value	0.540		0.540	
MW-9	Trend	None	NT	NT	NT
	Z-score	0.00			
	p-value	1.00			
MW-10	Trend	None	NT	NT	NT
	Z-score	-0.463			
	p-value	0.643			
MW-11	Trend	None	NT	None	NT
	Z-score	0.00		0.00	
	p-value	1.00		1.00	

NOTES: Two-sided test for trend performed at 99% confidence level ($\alpha = 0.01$).

Critical Z-score = 2.57 (if $|Z| > 2.57$, then $p < 0.01$ and trend is significant).

NT = not tested (all data below laboratory reporting limits).



HYDROMETRICS, INC. MONTANA OFFICES

HELENA (Corporate)
3020 Bozeman Avenue
Helena, MT 59601
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FAX: (406) 656-8912

MISSOULA
667 East Beckwith
Missoula, MT 59801
Phone: (406) 721-8243
FAX: (406) 542-2619

COLSTRIP
Phone: (406) 656-8305
Fax: (406) 656-8912

KALISPELL
300 Learn Lane
Kalispell, MT 59901
Phone: (406) 471-8635



June 1, 2009

Lee Wolfe
Wolfe Water Management, Inc.
3920 McHugh Lane
Helena, Montana 59602

Dear Mr. Wolfe:

Enclosed are the analytical results for the water samples that were collected from the Pele Mobile Home Park (formerly Twilight Mobile Home Park) (Wells No. 1 and No. 2) on May 13, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of both of the Pele Mobile Home Park Wells is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Nickel".

Jon Nickel

Enclosures

Cc: Bob Miller
Tom Aldrich



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-307
Lab ID: H09050213-008
Matrix: Groundwater

Pele Trailer Court No. 2 Well

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 10:15 DateReceived: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.6	s.u.		0.1		A4500-H B	05/15/09 12:13 / hm		PH_090515A : 58	090515A-PH-W	
Conductivity	261	umhos/cm		1		A2510 B	05/15/09 10:12 / hm		COND_090515A : 1090515A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/19/09 13:05 / hm		SOLIDS_090519A : 11	090519A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	160	mg/L		10		A2540 C	05/19/09 15:39 / hm		SOLIDS_090519B : 12	090519A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	77	mg/L		1		A2320 B	05/21/09 11:56 / hm		TITTR_090521A : 17	090521A-ALK-W	
Bicarbonate as HCO3	94	mg/L		1		A2320 B	05/21/09 11:56 / hm		TITTR_090521A : 17	090521A-ALK-W	
Chloride	3	mg/L		1		E300.0	05/21/09 01:03 / hm		IC101-H_090520A : 58	R53685	
Sulfate	41	mg/L		1		E300.0	05/21/09 01:03 / hm		IC101-H_090520A : 58	R53685	
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/19/09 21:59 / eli-b		SUB-B129715 : 16	B_R129715	
Aluminum	ND	mg/L		0.1		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49	B_R129584	
Antimony	ND	mg/L		0.003		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49	B_R129584	
Arsenic	ND	mg/L		0.002		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49	B_R129584	
Barium	ND	mg/L		0.1		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49	B_R129584	
Beryllium	ND	mg/L		0.001		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49	B_R129584	
Cadmium	ND	mg/L		0.001		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49	B_R129584	
Calcium	28	mg/L		1		E200.7	05/19/09 21:59 / eli-b		SUB-B129715 : 16	B_R129715	
Chromium	ND	mg/L		0.001		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49	B_R129584	
Cobalt	ND	mg/L		0.01		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49	B_R129584	
Copper	ND	mg/L		0.001		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49	B_R129584	
Gold	ND	mg/L		0.01		E200.7	05/19/09 21:59 / eli-b		SUB-B129715 : 16	B_R129715	
Iron	0.04	mg/L		0.02		E200.7	05/19/09 21:59 / eli-b		SUB-B129715 : 16	B_R129715	
Lead	ND	mg/L		0.005		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49	B_R129584	
Magnesium	6	mg/L		1		E200.7	05/19/09 21:59 / eli-b		SUB-B129715 : 16	B_R129715	
Manganese	ND	mg/L		0.01		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49	B_R129584	
Mercury	ND	mg/L		0.001		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49	B_R129584	
Nickel	ND	mg/L		0.01		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49	B_R129584	
Potassium	3	mg/L		1		E200.7	05/19/09 21:59 / eli-b		SUB-B129715 : 16	B_R129715	
Selenium	ND	mg/L		0.001		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49	B_R129584	

Report RL - Analyte reporting limit.

Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-307
Lab ID: H09050213-008
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 10:15 DateReceived: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49		B_R129584
Sodium	12	mg/L		1		E200.7	05/19/09 21:59 / eli-b		SUB-B129715 : 16		B_R129715
Thallium	ND	mg/L		0.001		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49		B_R129584
Vanadium	ND	mg/L		0.01		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49		B_R129584
Zinc	ND	mg/L		0.01		E200.8	05/19/09 04:47 / eli-b		SUB-B129584 : 49		B_R129584

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-308 Pele Trailer Court No. 1 Well
Lab ID: H09050213-009
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 10:30 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.7	s.u.		0.1		A4500-H B	05/15/09 12:17 / hm		PH_090515A : 59	090515A-PH-W	
Conductivity	277	umhos/cm		1		A2510 B	05/15/09 10:13 / hm		COND_090515A : 1190515A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/19/09 13:05 / hm		SOLIDs_090519A : 12 090519A-SLDS-TSS-		
Solids, Total Dissolved TDS @ 180 C	171	mg/L		10		A2540 C	05/19/09 15:40 / hm		SOLIDs_090519B : 13 090519A-SLDS-TDS-		
INORGANICS											
Alkalinity, Total as CaCO3	78	mg/L		1		A2320 B	05/21/09 12:03 / hm		TITTR_090521A : 18	090521A-ALK-W	
Bicarbonate as HCO3	95	mg/L		1		A2320 B	05/21/09 12:03 / hm		TITTR_090521A : 18	090521A-ALK-W	
Chloride	4	mg/L		1		E300.0	05/21/09 01:52 / hm		IC101-H_090520A : 61	R53685	
Sulfate	47	mg/L		1		E300.0	05/21/09 01:52 / hm		IC101-H_090520A : 61	R53685	
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/19/09 22:03 / eli-b		SUB-B129715 : 17	B_R129715	
Aluminum	ND	mg/L		0.1		E200.8	05/19/09 04:51 / eli-b		SUB-B129584 : 50	B_R129584	
Antimony	ND	mg/L		0.003		E200.8	05/19/09 04:51 / eli-b		SUB-B129584 : 50	B_R129584	
Arsenic	ND	mg/L		0.002		E200.8	05/19/09 04:51 / eli-b		SUB-B129584 : 50	B_R129584	
Barium	ND	mg/L		0.1		E200.8	05/19/09 04:51 / eli-b		SUB-B129584 : 50	B_R129584	
Beryllium	ND	mg/L		0.001		E200.8	05/19/09 04:51 / eli-b		SUB-B129584 : 50	B_R129584	
Cadmium	ND	mg/L		0.001		E200.8	05/19/09 04:51 / eli-b		SUB-B129584 : 50	B_R129584	
Calcium	30	mg/L		1		E200.7	05/19/09 22:03 / eli-b		SUB-B129715 : 17	B_R129715	
Chromium	ND	mg/L		0.001		E200.8	05/19/09 04:51 / eli-b		SUB-B129584 : 50	B_R129584	
Cobalt	ND	mg/L		0.01		E200.8	05/19/09 04:51 / eli-b		SUB-B129584 : 50	B_R129584	
Copper	ND	mg/L		0.001		E200.8	05/19/09 04:51 / eli-b		SUB-B129584 : 50	B_R129584	
Gold	ND	mg/L		0.01		E200.7	05/19/09 22:03 / eli-b		SUB-B129715 : 17	B_R129715	
Iron	ND	mg/L		0.02		E200.7	05/19/09 22:03 / eli-b		SUB-B129715 : 17	B_R129715	
Lead	ND	mg/L		0.005		E200.8	05/19/09 04:51 / eli-b		SUB-B129584 : 50	B_R129584	
Magnesium	7	mg/L		1		E200.7	05/19/09 22:03 / eli-b		SUB-B129715 : 17	B_R129715	
Manganese	ND	mg/L		0.01		E200.8	05/19/09 04:51 / eli-b		SUB-B129584 : 50	B_R129584	
Mercury	ND	mg/L		0.001		E200.8	05/19/09 04:51 / eli-b		SUB-B129584 : 50	B_R129584	
Nickel	ND	mg/L		0.01		E200.8	05/19/09 04:51 / eli-b		SUB-B129584 : 50	B_R129584	
Potassium	3	mg/L		1		E200.7	05/19/09 22:03 / eli-b		SUB-B129715 : 17	B_R129715	
Selenium	ND	mg/L		0.001		E200.8	05/19/09 04:51 / eli-b		SUB-B129584 : 50	B_R129584	

Report RL - Analyte reporting limit.

Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-308
Lab ID: H09050213-009
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 10:30 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	05/19/09 04:51 / ell-b		SUB-B129584 : 50		B_R129584
Sodium	12	mg/L		1		E200.7	05/19/09 22:03 / ell-b		SUB-B129715 : 17		B_R129715
Thallium	ND	mg/L		0.001		E200.8	05/19/09 04:51 / ell-b		SUB-B129584 : 50		B_R129584
Vanadium	ND	mg/L		0.01		E200.8	05/19/09 04:51 / ell-b		SUB-B129584 : 50		B_R129584
Zinc	0.01	mg/L		0.01		E200.8	05/19/09 04:51 / ell-b		SUB-B129584 : 50		B_R129584

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



June 1, 2009

Bill Casey
City of East Helena
Public Work Director
P. O. Box 1170
East Helena, Montana 59635

Dear Mr. Casey:

Enclosed are the analytical results for the water samples that were collected from the City of East Helena No. 1, No. 2, and No. 3 (both original and duplicate) ground water wells on May 13, 2009. You indicated that the City of East Helena No. 2 well was recently activated. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality in the three City of East Helena wells is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested.

Asarco appreciates the opportunity to sample the City of East Helena groundwater wells. If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

A handwritten signature in black ink that reads "Jon Nickel".

Jon Nickel

Enclosures

Cc: Bob Miller
Tom Aldrich



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-310 City of East Helena No. 2Well
Lab ID: H09050213-011
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 13:15 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.8	s.u.		0.1		A4500-H B	05/15/09 12:22 / hm		PH_090515A : 61	090515A-PH-W	
Conductivity	284	umhos/cm		1		A2510 B	05/15/09 10:16 / hm		COND_090515A : 1490515A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/19/09 13:06 / hm		SOLIDS_090519A : 14 090519A-SLDS-TSS-		
Solids, Total Dissolved TDS @ 180 C	172	mg/L		10		A2540 C	05/19/09 15:42 / hm		SOLIDS_090519B : 15 090519A-SLDS-TDS-		
INORGANICS											
Alkalinity, Total as CaCO3	78	mg/L		1		A2320 B	05/21/09 12:30 / hm		TITTR_090521A : 21	090521A-ALK-W	
Bicarbonate as HCO3	95	mg/L		1		A2320 B	05/21/09 12:30 / hm		TITTR_090521A : 21	090521A-ALK-W	
Chloride	5	mg/L		1		E300.0	05/21/09 02:25 / hm		IC101-H_090520A : 63	R53685	
Sulfate	44	mg/L		1		E300.0	05/21/09 02:25 / hm		IC101-H_090520A : 63	R53685	
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/19/09 22:11 / ell-b		SUB-B129715 : 19	B_R129715	
Aluminum	ND	mg/L		0.1		E200.8	05/19/09 05:11 / ell-b		SUB-B129584 : 52	B_R129584	
Antimony	ND	mg/L		0.003		E200.8	05/19/09 05:11 / ell-b		SUB-B129584 : 52	B_R129584	
Arsenic	ND	mg/L		0.002		E200.8	05/19/09 05:11 / ell-b		SUB-B129584 : 52	B_R129584	
Barium	ND	mg/L		0.1		E200.8	05/19/09 05:11 / ell-b		SUB-B129584 : 52	B_R129584	
Beryllium	ND	mg/L		0.001		E200.8	05/19/09 05:11 / ell-b		SUB-B129584 : 52	B_R129584	
Cadmium	ND	mg/L		0.001		E200.8	05/19/09 05:11 / ell-b		SUB-B129584 : 52	B_R129584	
Calcium	31	mg/L		1		E200.7	05/19/09 22:11 / ell-b		SUB-B129715 : 19	B_R129715	
Chromium	ND	mg/L		0.001		E200.8	05/19/09 05:11 / ell-b		SUB-B129584 : 52	B_R129584	
Cobalt	ND	mg/L		0.01		E200.8	05/19/09 05:11 / ell-b		SUB-B129584 : 52	B_R129584	
Copper	0.004	mg/L		0.001		E200.8	05/19/09 05:11 / ell-b		SUB-B129584 : 52	B_R129584	
Gold	ND	mg/L		0.01		E200.7	05/19/09 22:11 / ell-b		SUB-B129715 : 19	B_R129715	
Iron	0.03	mg/L		0.02		E200.7	05/19/09 22:11 / ell-b		SUB-B129715 : 19	B_R129715	
Lead	ND	mg/L		0.005		E200.8	05/19/09 05:11 / ell-b		SUB-B129584 : 52	B_R129584	
Magnesium	7	mg/L		1		E200.7	05/19/09 22:11 / ell-b		SUB-B129715 : 19	B_R129715	
Manganese	ND	mg/L		0.01		E200.8	05/19/09 05:11 / ell-b		SUB-B129584 : 52	B_R129584	
Mercury	ND	mg/L		0.001		E200.8	05/19/09 05:11 / ell-b		SUB-B129584 : 52	B_R129584	
Nickel	ND	mg/L		0.01		E200.8	05/19/09 05:11 / ell-b		SUB-B129584 : 52	B_R129584	
Potassium	3	mg/L		1		E200.7	05/19/09 22:11 / ell-b		SUB-B129715 : 19	B_R129715	
Selenium	ND	mg/L		0.001		E200.8	05/19/09 05:11 / ell-b		SUB-B129584 : 52	B_R129584	

Report RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-310
Lab ID: H09050213-011
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 13:15 DateReceived: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	05/19/09 05:11 / eli-b		SUB-B129584 : 52		B_R129584
Sodium	12	mg/L		1		E200.7	05/19/09 22:11 / eli-b		SUB-B129715 : 19		B_R129715
Thallium	ND	mg/L		0.001		E200.8	05/19/09 05:11 / eli-b		SUB-B129584 : 52		B_R129584
Vanadium	ND	mg/L		0.01		E200.8	05/19/09 05:11 / eli-b		SUB-B129584 : 52		B_R129584
Zinc	0.02	mg/L		0.01		E200.8	05/19/09 05:11 / eli-b		SUB-B129584 : 52		B_R129584

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ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-311 City of East Helena No. 1 Well
Lab ID: H09050213-012
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 13:45 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.6	s.u.		0.1		A4500-H B	05/15/09 12:24 / hm		PH_090515A : 62	090515A-PH-W	
Conductivity	280	umhos/cm		1		A2510 B	05/15/09 10:17 / hm		COND_090515A : 1590515A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/19/09 13:06 / hm		SOLIDS_090519A : 15 090519A-SLDS-TSS		
Solids, Total Dissolved TDS @ 180 C	162	mg/L		10		A2540 C	05/19/09 15:42 / hm		SOLIDS_090519B : 16 090519A-SLDS-TDS		
INORGANICS											
Alkalinity, Total as CaCO3	82	mg/L		1		A2320 B	05/21/09 12:45 / hm		TITTR_090521A : 22	090521A-ALK-W	
Bicarbonate as HCO3	100	mg/L		1		A2320 B	05/21/09 12:45 / hm		TITTR_090521A : 22	090521A-ALK-W	
Chloride	5	mg/L		1		E300.0	05/21/09 02:41 / hm		IC101-H_090520A : 64	R53685	
Sulfate	41	mg/L		1		E300.0	05/21/09 02:41 / hm		IC101-H_090520A : 64	R53685	
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/19/09 22:15 / eli-b		SUB-B129715 : 20	B_R129715	
Aluminum	ND	mg/L		0.1		E200.8	05/19/09 05:16 / eli-b		SUB-B129584 : 53	B_R129584	
Antimony	ND	mg/L		0.003		E200.8	05/19/09 05:16 / ell-b		SUB-B129584 : 53	B_R129584	
Arsenic	ND	mg/L		0.002		E200.8	05/19/09 05:16 / eli-b		SUB-B129584 : 53	B_R129584	
Barium	ND	mg/L		0.1		E200.8	05/19/09 05:16 / eli-b		SUB-B129584 : 53	B_R129584	
Beryllium	ND	mg/L		0.001		E200.8	05/19/09 05:16 / eli-b		SUB-B129584 : 53	B_R129584	
Cadmium	ND	mg/L		0.001		E200.8	05/19/09 05:16 / eli-b		SUB-B129584 : 53	B_R129584	
Calcium	30	mg/L		1		E200.7	05/19/09 22:15 / ell-b		SUB-B129715 : 20	B_R129715	
Chromium	ND	mg/L		0.001		E200.8	05/19/09 05:16 / ell-b		SUB-B129584 : 53	B_R129584	
Cobalt	ND	mg/L		0.01		E200.8	05/19/09 05:16 / ell-b		SUB-B129584 : 53	B_R129584	
Copper	0.002	mg/L		0.001		E200.8	05/19/09 05:16 / ell-b		SUB-B129584 : 53	B_R129584	
Gold	ND	mg/L		0.01		E200.7	05/19/09 22:15 / eli-b		SUB-B129715 : 20	B_R129715	
Iron	ND	mg/L		0.02		E200.7	05/19/09 22:15 / eli-b		SUB-B129715 : 20	B_R129715	
Lead	ND	mg/L		0.005		E200.8	05/19/09 05:16 / eli-b		SUB-B129584 : 53	B_R129584	
Magnesium	7	mg/L		1		E200.7	05/19/09 22:15 / ell-b		SUB-B129715 : 20	B_R129715	
Manganese	ND	mg/L		0.01		E200.8	05/19/09 05:16 / eli-b		SUB-B129584 : 53	B_R129584	
Mercury	ND	mg/L		0.001		E200.8	05/19/09 05:16 / eli-b		SUB-B129584 : 53	B_R129584	
Nickel	ND	mg/L		0.01		E200.8	05/19/09 05:16 / eli-b		SUB-B129584 : 53	B_R129584	
Potassium	3	mg/L		1		E200.7	05/19/09 22:15 / ell-b		SUB-B129715 : 20	B_R129715	
Selenium	ND	mg/L		0.001		E200.8	05/19/09 05:16 / ell-b		SUB-B129584 : 53	B_R129584	

Report RL - Analyte reporting limit.

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Definitions:



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-311
Lab ID: H09050213-012
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 13:45 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	05/19/09 05:16 / eli-b		SUB-B129584 : 53		B_R129584
Sodium	12	mg/L		1		E200.7	05/19/09 22:15 / eli-b		SUB-B129715 : 20		B_R129715
Thallium	ND	mg/L		0.001		E200.8	05/19/09 05:16 / eli-b		SUB-B129584 : 53		B_R129584
Vanadium	ND	mg/L		0.01		E200.8	05/19/09 05:16 / eli-b		SUB-B129584 : 53		B_R129584
Zinc	0.01	mg/L		0.01		E200.8	05/19/09 05:16 / eli-b		SUB-B129584 : 53		B_R129584

Report Definitions: RL - Analyte reporting limit.

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ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-312 City of East Helena No. 3 Well
Lab ID: H09050213-013 (Original)
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 14:00 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.6	s.u.		0.1		A4500-H B	05/15/09 12:27 / hm		PH_090515A : 63	090515A-PH-W	
Conductivity	275	umhos/cm		1		A2510 B	05/15/09 10:20 / hm		COND_090515A : 1690515A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/19/09 13:07 / hm		SOLIDS_090519A : 17	090519A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	165	mg/L		10		A2540 C	05/19/09 15:43 / hm		SOLIDS_090519B : 18	090519A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	77	mg/L		1		A2320 B	05/21/09 13:00 / hm		TITTR_090521A : 23	090521A-ALK-W	
Bicarbonate as HCO3	94	mg/L		1		A2320 B	05/21/09 13:00 / hm		TITTR_090521A : 23	090521A-ALK-W	
Chloride	4	mg/L		1		E300.0	05/21/09 02:58 / hm		IC101-H_090520A : 65	R53685	
Sulfate	45	mg/L		1		E300.0	05/21/09 02:58 / hm		IC101-H_090520A : 65	R53685	
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/19/09 22:27 / eli-b		SUB-B129715 : 21	B_R129715	
Aluminum	ND	mg/L		0.1		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54	B_R129584	
Antimony	ND	mg/L		0.003		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54	B_R129584	
Arsenic	ND	mg/L		0.002		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54	B_R129584	
Barium	ND	mg/L		0.1		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54	B_R129584	
Beryllium	ND	mg/L		0.001		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54	B_R129584	
Cadmium	ND	mg/L		0.001		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54	B_R129584	
Calcium	29	mg/L		1		E200.7	05/19/09 22:27 / eli-b		SUB-B129715 : 21	B_R129715	
Chromium	ND	mg/L		0.001		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54	B_R129584	
Cobalt	ND	mg/L		0.01		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54	B_R129584	
Copper	0.002	mg/L		0.001		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54	B_R129584	
Gold	ND	mg/L		0.01		E200.7	05/19/09 22:27 / eli-b		SUB-B129715 : 21	B_R129715	
Iron	ND	mg/L		0.02		E200.7	05/19/09 22:27 / eli-b		SUB-B129715 : 21	B_R129715	
Lead	ND	mg/L		0.005		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54	B_R129584	
Magnesium	7	mg/L		1		E200.7	05/19/09 22:27 / eli-b		SUB-B129715 : 21	B_R129715	
Manganese	ND	mg/L		0.01		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54	B_R129584	
Mercury	ND	mg/L		0.001		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54	B_R129584	
Nickel	ND	mg/L		0.01		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54	B_R129584	
Potassium	3	mg/L		1		E200.7	05/19/09 22:27 / eli-b		SUB-B129715 : 21	B_R129715	
Selenium	ND	mg/L		0.001		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54	B_R129584	

Report RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-312
Lab ID: H09050213-013
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 14:00 DateReceived: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54		B_R129584
Sodium	13	mg/L		1		E200.7	05/19/09 22:27 / eli-b		SUB-B129715 : 21		B_R129715
Thallium	ND	mg/L		0.001		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54		B_R129584
Vanadium	ND	mg/L		0.01		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54		B_R129584
Zinc	ND	mg/L		0.01		E200.8	05/19/09 05:20 / eli-b		SUB-B129584 : 54		B_R129584

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-313 City of East Helena No. 3 Well
Lab ID: H09050213-014 (Duplicate)
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 14:15 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.6	s.u.		0.1		A4500-H B	05/15/09 12:28 / hm		PH_090515A : 64	090515A-PH-W	
Conductivity	274	umhos/cm		1		A2510 B	05/15/09 10:20 / hm		COND_090515A : 1790515A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/19/09 13:07 / hm		SOLIDS_090519A : 18	090519A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	165	mg/L		10		A2540 C	05/19/09 15:43 / hm		SOLIDS_090519B : 19	090519A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	77	mg/L		1		A2320 B	05/21/09 13:40 / hm		TITTR_090521A : 26	090521A-ALK-W	
Bicarbonate as HCO3	94	mg/L		1		A2320 B	05/21/09 13:40 / hm		TITTR_090521A : 26	090521A-ALK-W	
Chloride	4	mg/L		1		E300.0	05/21/09 03:14 / hm		IC101-H_090520A : 66	R53685	
Sulfate	45	mg/L		1		E300.0	05/21/09 03:14 / hm		IC101-H_090520A : 66	R53685	
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/19/09 22:31 / eli-b		SUB-B129715 : 8	B_R129715	
Aluminum	ND	mg/L		0.1		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41	B_R129584	
Antimony	ND	mg/L		0.003		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41	B_R129584	
Arsenic	ND	mg/L		0.002		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41	B_R129584	
Barium	ND	mg/L		0.1		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41	B_R129584	
Beryllium	ND	mg/L		0.001		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41	B_R129584	
Cadmium	ND	mg/L		0.001		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41	B_R129584	
Calcium	29	mg/L		1		E200.7	05/19/09 22:31 / eli-b		SUB-B129715 : 8	B_R129715	
Chromium	ND	mg/L		0.001		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41	B_R129584	
Cobalt	ND	mg/L		0.01		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41	B_R129584	
Copper	0.001	mg/L		0.001		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41	B_R129584	
Gold	ND	mg/L		0.01		E200.7	05/19/09 22:31 / eli-b		SUB-B129715 : 8	B_R129715	
Iron	ND	mg/L		0.02		E200.7	05/19/09 22:31 / eli-b		SUB-B129715 : 8	B_R129715	
Lead	ND	mg/L		0.005		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41	B_R129584	
Magnesium	6	mg/L		1		E200.7	05/19/09 22:31 / eli-b		SUB-B129715 : 8	B_R129715	
Manganese	ND	mg/L		0.01		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41	B_R129584	
Mercury	ND	mg/L		0.001		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41	B_R129584	
Nickel	ND	mg/L		0.01		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41	B_R129584	
Potassium	3	mg/L		1		E200.7	05/19/09 22:31 / eli-b		SUB-B129715 : 8	B_R129715	
Selenium	ND	mg/L		0.001		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41	B_R129584	

Report RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-313
Lab ID: H09050213-014
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 14:15 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41		B_R129584
Sodium	13	mg/L		1		E200.7	05/19/09 22:31 / eli-b		SUB-B129715 : 8		B_R129715
Thallium	ND	mg/L		0.001		E200.8	05/19/09 05:40 / ell-b		SUB-B129584 : 41		B_R129584
Vanadium	ND	mg/L		0.01		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41		B_R129584
Zinc	ND	mg/L		0.01		E200.8	05/19/09 05:40 / eli-b		SUB-B129584 : 41		B_R129584

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



June 1, 2009

John Simac
2540 Wylie Drive
P. O. Box 59
East Helena, Montana 59635

Dear Mr. Simac:

Enclosed are the analytical results for the water samples that were collected from your ground water drinking well on May 13, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested. These recent water quality results are consistent with previous monitoring data from your site and do not indicate significant changes from historical baseline data.

I wish to thank you for allowing me to sample your groundwater well. If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

A handwritten signature in black ink that reads "Jon Nickel".

Jon Nickel

Enclosures

Cc: Bob Miller
Tom Aldrich



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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-309
Lab ID: H09050213-010
Matrix: Groundwater

Simac Residence
2540 Wylie Drive

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 11:00 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.6	s.u.		0.1		A4500-H B	05/15/09 12:20 / hm		PH_090515A : 60	090515A-PH-W	
Conductivity	479	umhos/cm		1		A2510 B	05/15/09 10:14 / hm		COND_090515A : 1290515A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/19/09 13:05 / hm		SOLIDS_090519A : 13	090519A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	325	mg/L		10		A2540 C	05/19/09 15:41 / hm		SOLIDS_090519B : 14	090519A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	05/21/09 12:17 / hm		TITTR_090521A : 19	090521A-ALK-W	
Bicarbonate as HCO3	140	mg/L		1		A2320 B	05/21/09 12:17 / hm		TITTR_090521A : 19	090521A-ALK-W	
Chloride	6	mg/L		1		E300.0	05/21/09 02:09 / hm		IC101-H_090520A : 62	R53685	
Sulfate	110	mg/L		1		E300.0	05/21/09 02:09 / hm		IC101-H_090520A : 62	R53685	
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/19/09 22:07 / eli-b		SUB-B129715 : 18	B_R129715	
Aluminum	ND	mg/L		0.1		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51	B_R129584	
Antimony	ND	mg/L		0.003		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51	B_R129584	
Arsenic	ND	mg/L		0.002		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51	B_R129584	
Barium	ND	mg/L		0.1		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51	B_R129584	
Beryllium	ND	mg/L		0.001		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51	B_R129584	
Cadmium	ND	mg/L		0.001		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51	B_R129584	
Calcium	57	mg/L		1		E200.7	05/19/09 22:07 / eli-b		SUB-B129715 : 18	B_R129715	
Chromium	ND	mg/L		0.001		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51	B_R129584	
Cobalt	ND	mg/L		0.01		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51	B_R129584	
Copper	0.002	mg/L		0.001		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51	B_R129584	
Gold	ND	mg/L		0.01		E200.7	05/19/09 22:07 / eli-b		SUB-B129715 : 18	B_R129715	
Iron	ND	mg/L		0.02		E200.7	05/19/09 22:07 / eli-b		SUB-B129715 : 18	B_R129715	
Lead	ND	mg/L		0.005		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51	B_R129584	
Magnesium	12	mg/L		1		E200.7	05/19/09 22:07 / eli-b		SUB-B129715 : 18	B_R129715	
Manganese	ND	mg/L		0.01		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51	B_R129584	
Mercury	ND	mg/L		0.001		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51	B_R129584	
Nickel	ND	mg/L		0.01		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51	B_R129584	
Potassium	5	mg/L		1		E200.7	05/19/09 22:07 / eli-b		SUB-B129715 : 18	B_R129715	
Selenium	0.005	mg/L		0.001		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51	B_R129584	

Report Definitions: RL - Analyte reporting limit.
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ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-309
Lab ID: H09050213-010
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 11:00 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51		B_R129584
Sodium	17	mg/L		1		E200.7	05/19/09 22:07 / eli-b		SUB-B129715 : 18		B_R129715
Thallium	ND	mg/L		0.001		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51		B_R129584
Vanadium	ND	mg/L		0.01		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51		B_R129584
Zinc	0.02	mg/L		0.01		E200.8	05/19/09 04:55 / eli-b		SUB-B129584 : 51		B_R129584

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



June 1, 2009

Jamie and Tina Marcum
P. O. Box 1114
East Helena, Montana 59635

Dear Mr. and Mrs. Marcum:

Enclosed are the analytical results for the water sample that was collected from the 303 Thurman Avenue ground water well on May 13, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested. These recent water quality results are consistent with previous monitoring data from your site and do not indicate significant changes from historical baseline data.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

A handwritten signature in black ink that reads "Jon Nickel". Below the signature, the name "Jon Nickel" is printed in a smaller, clean font.

Enclosure

Cc: Bob Miller
Tom Aldrich



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-306
Lab ID: H09050213-007
Matrix: Groundwater

Marcum Residence
303 Thurman Avenue

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 09:45 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.4	s.u.		0.1		A4500-H B	05/15/09 12:09 / hm		PH_090515A : 56		090515A-PH-W
Conductivity	367	umhos/cm		1		A2510 B	05/15/09 10:11 / hm		COND_090515A : 990515A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/19/09 13:04 / hm		SOLID_S_090519A : 9	090519A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	214	mg/L		10		A2540 C	05/19/09 15:37 / hm		SOLID_S_090519B : 9	090519A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	92	mg/L		1		A2320 B	05/21/09 11:27 / hm		TITTR_090521A : 15		090521A-ALK-W
Bicarbonate as HCO3	110	mg/L		1		A2320 B	05/21/09 11:27 / hm		TITTR_090521A : 15		090521A-ALK-W
Chloride	7	mg/L		1		E300.0	05/21/09 00:46 / hm		IC101-H_090520A : 57		R53685
Sulfate	70	mg/L		1		E300.0	05/21/09 00:46 / hm		IC101-H_090520A : 57		R53685
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/19/09 21:55 / eli-b		SUB-B129715 : 15		B_R129715
Aluminum	ND	mg/L		0.1		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Antimony	ND	mg/L		0.003		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Arsenic	ND	mg/L		0.002		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Barium	ND	mg/L		0.1		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Beryllium	ND	mg/L		0.001		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Cadmium	ND	mg/L		0.001		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Calcium	31	mg/L		1		E200.7	05/19/09 21:55 / eli-b		SUB-B129715 : 15		B_R129715
Chromium	ND	mg/L		0.001		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Cobalt	ND	mg/L		0.01		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Copper	0.005	mg/L		0.001		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Gold	ND	mg/L		0.01		E200.7	05/19/09 21:55 / eli-b		SUB-B129715 : 15		B_R129715
Iron	ND	mg/L		0.02		E200.7	05/19/09 21:55 / eli-b		SUB-B129715 : 15		B_R129715
Lead	ND	mg/L		0.005		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Magnesium	7	mg/L		1		E200.7	05/19/09 21:55 / eli-b		SUB-B129715 : 15		B_R129715
Manganese	ND	mg/L		0.01		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Mercury	ND	mg/L		0.001		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Nickel	ND	mg/L		0.01		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Potassium	6	mg/L		1		E200.7	05/19/09 21:55 / eli-b		SUB-B129715 : 15		B_R129715
Selenium	0.005	mg/L		0.001		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584

Report RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-306
Lab ID: H09050213-007
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 09:45 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Sodium	28	mg/L		1		E200.7	05/19/09 21:55 / eli-b		SUB-B129715 : 15		B_R129715
Thallium	ND	mg/L		0.001		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Vanadium	ND	mg/L		0.01		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584
Zinc	0.02	mg/L		0.01		E200.8	05/19/09 04:43 / eli-b		SUB-B129584 : 48		B_R129584

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



June 1, 2009

Wayne Helfert
P. O. Box 858
407 Porter Street
East Helena, Montana 59635

Dear Mr. Helfert:

Enclosed are the analytical results for the water samples that were collected from your ground water well on May 13, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Nickel".

Jon Nickel

Enclosures

Cc: Bob Miller
Tom Aldrich



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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-305
Lab ID: H09050213-006
Matrix: Groundwater

Helfert Residence
407 Porter

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 09:15 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.6	s.u.		0.1		A4500-H B	05/15/09 12:07 / hm		PH_090515A : 55		090515A-PH-W
Conductivity	696	umhos/cm		1		A2510 B	05/15/09 10:10 / hm		COND_090515A : 890515A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/19/09 13:03 / hm		SOLID_090519A : 8 090519A-SLDS-TSS-		
Solids, Total Dissolved TDS @ 180 C	467	mg/L		10		A2540 C	05/19/09 15:36 / hm		SOLID_090519B : 8 090519A-SLDS-TDS-		
INORGANICS											
Alkalinity, Total as CaCO ₃	120	mg/L		1		A2320 B	05/21/09 11:20 / hm		TITR_090521A : 14		090521A-ALK-W
Bicarbonate as HCO ₃	150	mg/L		1		A2320 B	05/21/09 11:20 / hm		TITR_090521A : 14		090521A-ALK-W
Chloride	14	mg/L		1		E300.0	05/21/09 00:30 / hm		IC101-H_090520A : 56		R53685
Sulfate	210	mg/L		1		E300.0	05/21/09 00:30 / hm		IC101-H_090520A : 56		R53685
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/19/09 21:51 / eli-b		SUB-B129715 : 14		B_R129715
Aluminum	ND	mg/L		0.1		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Antimony	ND	mg/L		0.003		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Arsenic	0.002	mg/L		0.002		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Barium	ND	mg/L		0.1		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Beryllium	ND	mg/L		0.001		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Cadmium	ND	mg/L		0.001		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Calcium	88	mg/L		1		E200.7	05/19/09 21:51 / eli-b		SUB-B129715 : 14		B_R129715
Chromium	ND	mg/L		0.001		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Cobalt	ND	mg/L		0.01		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Copper	0.012	mg/L		0.001		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Gold	ND	mg/L		0.01		E200.7	05/19/09 21:51 / eli-b		SUB-B129715 : 14		B_R129715
Iron	ND	mg/L		0.02		E200.7	05/19/09 21:51 / eli-b		SUB-B129715 : 14		B_R129715
Lead	ND	mg/L		0.005		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Magnesium	20	mg/L		1		E200.7	05/19/09 21:51 / eli-b		SUB-B129715 : 14		B_R129715
Manganese	ND	mg/L		0.01		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Mercury	ND	mg/L		0.001		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Nickel	ND	mg/L		0.01		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Potassium	4	mg/L		1		E200.7	05/19/09 21:51 / eli-b		SUB-B129715 : 14		B_R129715
Selenium	0.012	mg/L		0.001		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584

Report RL - Analyte reporting limit.

Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-305
Lab ID: H09050213-006
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 09:15 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Sodium	24	mg/L		1		E200.7	05/19/09 21:51 / eli-b		SUB-B129715 : 14		B_R129715
Thallium	ND	mg/L		0.001		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Vanadium	ND	mg/L		0.01		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584
Zinc	ND	mg/L		0.01		E200.8	05/19/09 04:23 / eli-b		SUB-B129584 : 47		B_R129584

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



June 1, 2009

Cacey Tamol
P. O. Box 1783
9 Gail Street
East Helena, Montana 59635

Dear Ms. Tamol:

Enclosed are the analytical results for the water samples that were collected from your ground water well on May 13, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested. These recent water quality results are consistent with previous monitoring data from your site and do not indicate significant changes from historical baseline data.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Nickel".

Jon Nickel

Enclosures

Cc: Bob Miller
Tom Aldrich



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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-304
Lab ID: H09050213-005
Matrix: Groundwater

Tamol Residence
9 Gail Street

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 08:40 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.4	s.u.		0.1		A4500-H B	05/15/09 12:03 / hm		PH_090515A : 53		090515A-PH-W
Conductivity	294	umhos/cm		1		A2510 B	05/15/09 10:07 / hm		COND_090515A : 690515A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/19/09 13:03 / hm		SOLID_090519A : 7	090519A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	178	mg/L		10		A2540 C	05/19/09 15:35 / hm		SOLID_090519B : 7	090519A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	81	mg/L		1		A2320 B	05/21/09 11:11 / hm		TITR_090521A : 13		090521A-ALK-W
Bicarbonate as HCO3	99	mg/L		1		A2320 B	05/21/09 11:11 / hm		TITR_090521A : 13		090521A-ALK-W
Chloride	5	mg/L		1		E300.0	05/20/09 23:41 / hm		IC101-H_090520A : 53		R53685
Sulfate	50	mg/L		1		E300.0	05/20/09 23:41 / hm		IC101-H_090520A : 53		R53685
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/19/09 21:39 / eli-b		SUB-B129715 : 13		B_R129715
Aluminum	ND	mg/L		0.1		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Antimony	ND	mg/L		0.003		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Arsenic	ND	mg/L		0.002		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Barium	ND	mg/L		0.1		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Beryllium	ND	mg/L		0.001		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Cadmium	ND	mg/L		0.001		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Calcium	32	mg/L		1		E200.7	05/19/09 21:39 / eli-b		SUB-B129715 : 13		B_R129715
Chromium	ND	mg/L		0.001		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Cobalt	ND	mg/L		0.01		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Copper	0.087	mg/L		0.001		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Gold	ND	mg/L		0.01		E200.7	05/19/09 21:39 / eli-b		SUB-B129715 : 13		B_R129715
Iron	ND	mg/L		0.02		E200.7	05/19/09 21:39 / eli-b		SUB-B129715 : 13		B_R129715
Lead	ND	mg/L		0.005		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Magnesium	7	mg/L		1		E200.7	05/19/09 21:39 / eli-b		SUB-B129715 : 13		B_R129715
Manganese	ND	mg/L		0.01		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Mercury	ND	mg/L		0.001		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Nickel	ND	mg/L		0.01		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Potassium	3	mg/L		1		E200.7	05/19/09 21:39 / eli-b		SUB-B129715 : 13		B_R129715
Selenium	ND	mg/L		0.001		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584

Report RL - Analyte reporting limit.

Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-304
Lab ID: H09050213-005
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 08:40 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Sodium	13	mg/L		1		E200.7	05/19/09 21:39 / eli-b		SUB-B129715 : 13		B_R129715
Thallium	ND	mg/L		0.001		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Vanadium	ND	mg/L		0.01		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584
Zinc	ND	mg/L		0.01		E200.8	05/19/09 04:19 / eli-b		SUB-B129584 : 46		B_R129584

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



June 1, 2009

Shane and Nelma Mosier
105 Gail Street
P. O. Box 168
East Helena, Montana 59635

Dear Shane and Nelma:

Enclosed are the analytical results for the water samples that were collected from your ground water well on May 13, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested. These recent water quality results are consistent with previous monitoring data from your site and do not indicate significant changes from historical baseline data.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,
A handwritten signature in black ink, appearing to read "Jon Nickel".
Jon Nickel

Enclosures

Cc: Bob Miller
Tom Aldrich



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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
 Client Sample ID: EHR-0509-303
 Lab ID: H09050213-004
 Matrix: Groundwater

Mosier Residence
 105 Gail Street

Project: Annual RI/FS Long Term Monitoring May 2009
 Collection Date: 05/13/09 08:20 Date Received: 05/13/09
 Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.5	s.u.		0.1		A4500-H B	05/15/09 12:01 / hm		PH_090515A : 52	090515A-PH-W	
Conductivity	306	µmhos/cm		1		A2510 B	05/15/09 10:06 / hm		COND_090515A : 590515A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/19/09 13:02 / hm		SOLID_090519A : 6 090519A-SLDS-TSS-		
Solids, Total Dissolved TDS @ 180 C	185	mg/L		10		A2540 C	05/19/09 15:35 / hm		SOLID_090519B : 6 090519A-SLDS-TDS-		
INORGANICS											
Alkalinity, Total as CaCO ₃	87	mg/L		1		A2320 B	05/21/09 10:26 / hm		TITTR_090521A : 10	090521A-ALK-W	
Bicarbonate as HCO ₃	110	mg/L		1		A2320 B	05/21/09 10:26 / hm		TITTR_090521A : 10	090521A-ALK-W	
Chloride	4	mg/L		1		E300.0	05/20/09 23:24 / hm		IC101-H_090520A : 52	R53685	
Sulfate	52	mg/L		1		E300.0	05/20/09 23:24 / hm		IC101-H_090520A : 52	R53685	
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/19/09 21:06 / eli-b		SUB-B129715 : 12	B_R129715	
Aluminum	ND	mg/L		0.1		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45	B_R129584	
Antimony	ND	mg/L		0.003		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45	B_R129584	
Arsenic	ND	mg/L		0.002		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45	B_R129584	
Barium	ND	mg/L		0.1		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45	B_R129584	
Beryllium	ND	mg/L		0.001		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45	B_R129584	
Cadmium	ND	mg/L		0.001		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45	B_R129584	
Calcium	32	mg/L		1		E200.7	05/19/09 21:06 / eli-b		SUB-B129715 : 12	B_R129715	
Chromium	ND	mg/L		0.001		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45	B_R129584	
Cobalt	ND	mg/L		0.01		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45	B_R129584	
Copper	0.019	mg/L		0.001		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45	B_R129584	
Gold	ND	mg/L		0.01		E200.7	05/19/09 21:06 / eli-b		SUB-B129715 : 12	B_R129715	
Iron	ND	mg/L		0.02		E200.7	05/19/09 21:06 / eli-b		SUB-B129715 : 12	B_R129715	
Lead	ND	mg/L		0.005		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45	B_R129584	
Magnesium	7	mg/L		1		E200.7	05/19/09 21:06 / eli-b		SUB-B129715 : 12	B_R129715	
Manganese	ND	mg/L		0.01		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45	B_R129584	
Mercury	ND	mg/L		0.001		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45	B_R129584	
Nickel	ND	mg/L		0.01		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45	B_R129584	
Potassium	3	mg/L		1		E200.7	05/19/09 21:06 / eli-b		SUB-B129715 : 12	B_R129715	
Selenium	ND	mg/L		0.001		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45	B_R129584	

Report RL - Analyte reporting limit.
 Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-303
Lab ID: H09050213-004
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 08:20 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45		B_R129584
Sodium	13	mg/L		1		E200.7	05/19/09 21:06 / eli-b		SUB-B129715 : 12		B_R129715
Thallium	ND	mg/L		0.001		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45		B_R129584
Vanadium	ND	mg/L		0.01		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45		B_R129584
Zinc	ND	mg/L		0.01		E200.8	05/19/09 04:15 / eli-b		SUB-B129584 : 45		B_R129584

Report RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



June 1, 2009

Pat Foley
203 Gail Street
P. O. Box 1551
East Helena, Montana 59635

Dear Mr. Foley:

Enclosed are the analytical results for the water sample that was collected from the 203 Gail Street ground water well on May 13, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested. These recent water quality results are consistent with previous monitoring data from your site and do not indicate significant changes from historical baseline data.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Nickel".

Jon Nickel

Enclosure

Cc: Bob Miller
Tom Aldrich



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-302
Lab ID: H09050213-003
Matrix: Groundwater

Rolley Residence
203 Gail Street

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 08:00 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.5	s.u.		0.1		A4500-H B	05/15/09 11:59 / hm		PH_090515A : 51	090515A-PH-W	
Conductivity	292	umhos/cm		1		A2510 B	05/15/09 10:05 / hm		COND_090515A : 490515A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/19/09 13:02 / hm		SOLID_090519A : 5	090519A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	175	mg/L		10		A2540 C	05/19/09 15:34 / hm		SOLID_090519B : 5	090519A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	78	mg/L		1		A2320 B	05/21/09 10:19 / hm		TITTR_090521A : 9	090521A-ALK-W	
Bicarbonate as HCO3	95	mg/L		1		A2320 B	05/21/09 10:19 / hm		TITTR_090521A : 9	090521A-ALK-W	
Chloride	4	mg/L		1		E300.0	05/20/09 23:08 / hm		IC101-H_090520A : 51	R53685	
Sulfate	52	mg/L		1		E300.0	05/20/09 23:08 / hm		IC101-H_090520A : 51	R53685	
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/19/09 21:02 / ell-b		SUB-B129715 : 11	B_R129715	
Aluminum	ND	mg/L		0.1		E200.8	05/19/09 04:11 / ell-b		SUB-B129584 : 44	B_R129584	
Antimony	ND	mg/L		0.003		E200.8	05/19/09 04:11 / ell-b		SUB-B129584 : 44	B_R129584	
Arsenic	ND	mg/L		0.002		E200.8	05/19/09 04:11 / ell-b		SUB-B129584 : 44	B_R129584	
Barium	ND	mg/L		0.1		E200.8	05/19/09 04:11 / ell-b		SUB-B129584 : 44	B_R129584	
Beryllium	ND	mg/L		0.001		E200.8	05/19/09 04:11 / ell-b		SUB-B129584 : 44	B_R129584	
Cadmium	ND	mg/L		0.001		E200.8	05/19/09 04:11 / ell-b		SUB-B129584 : 44	B_R129584	
Calcium	30	mg/L		1		E200.7	05/19/09 21:02 / ell-b		SUB-B129715 : 11	B_R129715	
Chromium	ND	mg/L		0.001		E200.8	05/19/09 04:11 / ell-b		SUB-B129584 : 44	B_R129584	
Cobalt	ND	mg/L		0.01		E200.8	05/19/09 04:11 / ell-b		SUB-B129584 : 44	B_R129584	
Copper	0.016	mg/L		0.001		E200.8	05/19/09 04:11 / ell-b		SUB-B129584 : 44	B_R129584	
Gold	ND	mg/L		0.01		E200.7	05/19/09 21:02 / ell-b		SUB-B129715 : 11	B_R129715	
Iron	ND	mg/L		0.02		E200.7	05/19/09 21:02 / ell-b		SUB-B129715 : 11	B_R129715	
Lead	ND	mg/L		0.005		E200.8	05/19/09 04:11 / ell-b		SUB-B129584 : 44	B_R129584	
Magnesium	7	mg/L		1		E200.7	05/19/09 21:02 / ell-b		SUB-B129715 : 11	B_R129715	
Manganese	ND	mg/L		0.01		E200.8	05/19/09 04:11 / ell-b		SUB-B129584 : 44	B_R129584	
Mercury	ND	mg/L		0.001		E200.8	05/19/09 04:11 / ell-b		SUB-B129584 : 44	B_R129584	
Nickel	ND	mg/L		0.01		E200.8	05/19/09 04:11 / ell-b		SUB-B129584 : 44	B_R129584	
Potassium	3	mg/L		1		E200.7	05/19/09 21:02 / ell-b		SUB-B129715 : 11	B_R129715	
Selenium	ND	mg/L		0.001		E200.8	05/19/09 04:11 / ell-b		SUB-B129584 : 44	B_R129584	

Report RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-302
Lab ID: H09050213-003
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 08:00 DateReceived: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	05/19/09 04:11 / eli-b		SUB-B129584 : 44		B_R129584
Sodium	12	mg/L		1		E200.7	05/19/09 21:02 / eli-b		SUB-B129715 : 11		B_R129715
Thallium	ND	mg/L		0.001		E200.8	05/19/09 04:11 / eli-b		SUB-B129584 : 44		B_R129584
Vanadium	ND	mg/L		0.01		E200.8	05/19/09 04:11 / eli-b		SUB-B129584 : 44		B_R129584
Zinc	ND	mg/L		0.01		E200.8	05/19/09 04:11 / eli-b		SUB-B129584 : 44		B_R129584

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



June 1, 2009

David Duel
P. O. Box 968
2 Gail Street
East Helena, Montana 59635

Dear Mr. Duel:

Enclosed are the analytical results for the water sample that was collected from your ground water well on May 13, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested. These recent water quality results are consistent with previous monitoring data from your site and do not indicate significant changes from historical baseline data.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Nickel".

Jon Nickel

Enclosure

Cc: Bob Miller
Tom Aldrich

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
 Client Sample ID: EHR-0509-301
 Lab ID: H09050213-002
 Matrix: Groundwater

Duel Residence
 3 Gail Street

Project: Annual RI/FS Long Term Monitoring May 2009
 Collection Date: 05/13/09 07:40 Date Received: 05/13/09
 Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.4	s.u.		0.1		A4500-H B	05/15/09 11:57 / hm		PH_090515A : 50		090515A-PH-W
Conductivity	298	umhos/cm		1		A2510 B	05/15/09 10:04 / hm		COND_090515A : 390515A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/19/09 13:01 / hm		SOLID_090519A : 4	090519A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	175	mg/L		10		A2540 C	05/19/09 15:33 / hm		SOLID_090519B : 4	090519A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	78	mg/L		1		A2320 B	05/21/09 10:12 / hm		TTTR_090521A : 8		090521A-ALK-W
Bicarbonate as HCO3	95	mg/L		1		A2320 B	05/21/09 10:12 / hm		TTTR_090521A : 8		090521A-ALK-W
Chloride	5	mg/L		1		E300.0	05/20/09 22:51 / hm		IC101-H_090520A : 50		R53685
Sulfate	53	mg/L		1		E300.0	05/20/09 22:51 / hm		IC101-H_090520A : 50		R53685
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/19/09 20:58 / ell-b		SUB-B129715 : 10		B_R129715
Aluminum	ND	mg/L		0.1		E200.8	05/19/09 04:07 / ell-b		SUB-B129584 : 43		B_R129584
Antimony	ND	mg/L		0.003		E200.8	05/19/09 04:07 / ell-b		SUB-B129584 : 43		B_R129584
Arsenic	0.003	mg/L		0.002		E200.8	05/19/09 04:07 / ell-b		SUB-B129584 : 43		B_R129584
Barium	ND	mg/L		0.1		E200.8	05/19/09 04:07 / ell-b		SUB-B129584 : 43		B_R129584
Beryllium	ND	mg/L		0.001		E200.8	05/19/09 04:07 / ell-b		SUB-B129584 : 43		B_R129584
Cadmium	ND	mg/L		0.001		E200.8	05/19/09 04:07 / ell-b		SUB-B129584 : 43		B_R129584
Calcium	30	mg/L		1		E200.7	05/19/09 20:58 / ell-b		SUB-B129715 : 10		B_R129715
Chromium	ND	mg/L		0.001		E200.8	05/19/09 04:07 / ell-b		SUB-B129584 : 43		B_R129584
Cobalt	ND	mg/L		0.01		E200.8	05/19/09 04:07 / ell-b		SUB-B129584 : 43		B_R129584
Copper	0.023	mg/L		0.001		E200.8	05/19/09 04:07 / ell-b		SUB-B129584 : 43		B_R129584
Gold	ND	mg/L		0.01		E200.7	05/19/09 20:58 / ell-b		SUB-B129715 : 10		B_R129715
Iron	0.03	mg/L		0.02		E200.7	05/19/09 20:58 / ell-b		SUB-B129715 : 10		B_R129715
Lead	ND	mg/L		0.005		E200.8	05/19/09 04:07 / ell-b		SUB-B129584 : 43		B_R129584
Magnesium	7	mg/L		1		E200.7	05/19/09 20:58 / ell-b		SUB-B129715 : 10		B_R129715
Manganese	ND	mg/L		0.01		E200.8	05/19/09 04:07 / ell-b		SUB-B129584 : 43		B_R129584
Mercury	ND	mg/L		0.001		E200.8	05/19/09 04:07 / ell-b		SUB-B129584 : 43		B_R129584
Nickel	ND	mg/L		0.01		E200.8	05/19/09 04:07 / ell-b		SUB-B129584 : 43		B_R129584
Potassium	3	mg/L		1		E200.7	05/19/09 20:58 / ell-b		SUB-B129715 : 10		B_R129715
Selenium	0.002	mg/L		0.001		E200.8	05/19/09 04:07 / ell-b		SUB-B129584 : 43		B_R129584

Report RL - Analyte reporting limit.
 Definitions: ND - Not detected at the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-301
Lab ID: H09050213-002
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 07:40 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	05/19/09 04:07 / eli-b		SUB-B129584 : 43		B_R129584
Sodium	13	mg/L		1		E200.7	05/19/09 20:58 / eli-b		SUB-B129715 : 10		B_R129715
Thallium	ND	mg/L		0.001		E200.8	05/19/09 04:07 / eli-b		SUB-B129584 : 43		B_R129584
Vanadium	ND	mg/L		0.01		E200.8	05/19/09 04:07 / eli-b		SUB-B129584 : 43		B_R129584
Zinc	ND	mg/L		0.01		E200.8	05/19/09 04:07 / eli-b		SUB-B129584 : 43		B_R129584

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



June 1, 2009

Robert Carlson
1 Gail Street
P. O. Box 994
East Helena, Montana 59635

Dear Mr. Carlson:

Enclosed are the analytical results for the water sample that was collected from your ground water well on May 13, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested. These recent water quality results are consistent with previous monitoring data from your site and do not indicate significant changes from historical baseline data.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Nickel".

Jon Nickel

Enclosure

Cc: Bob Miller
Tom Aldrich

ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
 Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
 Client Sample ID: EHR-0509-300
 Lab ID: H09050213-001
 Matrix: Groundwater

Carlson Residence
 1 Gail Street

Project: Annual RI/FS Long Term Monitoring May 2009
 Collection Date: 05/13/09 07:20 Date Received: 05/13/09
 Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.5	s.u.		0.1		A4500-H B	05/15/09 11:56 / hm		PH_090515A : 49	090515A-PH-W	
Conductivity	291	umhos/cm		1		A2510 B	05/15/09 10:03 / hm		COND_090515A : 290515A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/19/09 13:00 / hm		SOLIDS_090519A : 3	090519A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	172	mg/L		10		A2540 C	05/19/09 15:33 / hm		SOLIDS_090519B : 3	090519A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	77	mg/L		1		A2320 B	05/21/09 10:02 / hm		TITTR_090521A : 7	090521A-ALK-W	
Bicarbonate as HCO3	94	mg/L		1		A2320 B	05/21/09 10:02 / hm		TITTR_090521A : 7	090521A-ALK-W	
Chloride	5	mg/L		1		E300.0	05/20/09 22:35 / hm		IC101-H_090520A : 49	R53685	
Sulfate	51	mg/L		1		E300.0	05/20/09 22:35 / hm		IC101-H_090520A : 49	R53685	
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/19/09 20:54 / ell-b		SUB-B129715 : 7	B_R129715	
Aluminum	ND	mg/L		0.1		E200.8	05/19/09 04:02 / ell-b		SUB-B129584 : 40	B_R129584	
Antimony	ND	mg/L		0.003		E200.8	05/19/09 04:02 / ell-b		SUB-B129584 : 40	B_R129584	
Arsenic	ND	mg/L		0.002		E200.8	05/19/09 04:02 / ell-b		SUB-B129584 : 40	B_R129584	
Barium	ND	mg/L		0.1		E200.8	05/19/09 04:02 / ell-b		SUB-B129584 : 40	B_R129584	
Beryllium	ND	mg/L		0.001		E200.8	05/19/09 04:02 / ell-b		SUB-B129584 : 40	B_R129584	
Cadmium	ND	mg/L		0.001		E200.8	05/19/09 04:02 / ell-b		SUB-B129584 : 40	B_R129584	
Calcium	30	mg/L		1		E200.7	05/19/09 20:54 / ell-b		SUB-B129715 : 7	B_R129715	
Chromium	0.001	mg/L		0.001		E200.8	05/19/09 04:02 / ell-b		SUB-B129584 : 40	B_R129584	
Cobalt	ND	mg/L		0.01		E200.8	05/19/09 04:02 / ell-b		SUB-B129584 : 40	B_R129584	
Copper	0.055	mg/L		0.001		E200.8	05/19/09 04:02 / ell-b		SUB-B129584 : 40	B_R129584	
Gold	ND	mg/L		0.01		E200.7	05/19/09 20:54 / ell-b		SUB-B129715 : 7	B_R129715	
Iron	0.05	mg/L		0.02		E200.7	05/19/09 20:54 / ell-b		SUB-B129715 : 7	B_R129715	
Lead	ND	mg/L		0.005		E200.8	05/19/09 04:02 / ell-b		SUB-B129584 : 40	B_R129584	
Magnesium	7	mg/L		1		E200.7	05/19/09 20:54 / ell-b		SUB-B129715 : 7	B_R129715	
Manganese	ND	mg/L		0.01		E200.8	05/19/09 04:02 / ell-b		SUB-B129584 : 40	B_R129584	
Mercury	ND	mg/L		0.001		E200.8	05/19/09 04:02 / ell-b		SUB-B129584 : 40	B_R129584	
Nickel	ND	mg/L		0.01		E200.8	05/19/09 04:02 / ell-b		SUB-B129584 : 40	B_R129584	
Potassium	3	mg/L		1		E200.7	05/19/09 20:54 / ell-b		SUB-B129715 : 7	B_R129715	
Selenium	ND	mg/L		0.001		E200.8	05/19/09 04:02 / ell-b		SUB-B129584 : 40	B_R129584	

Report RL - Analyte reporting limit.
 Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-300
Lab ID: H09050213-001
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/13/09 07:20 Date Received: 05/13/09
Report Date: 05/22/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.8	05/19/09 04:02 / eli-b		SUB-B129584 : 40		B_R129584
Sodium	13	mg/L		1		E200.7	05/19/09 20:54 / eli-b		SUB-B129715 : 7		B_R129715
Thallium	ND	mg/L		0.001		E200.8	05/19/09 04:02 / eli-b		SUB-B129584 : 40		B_R129584
Vanadium	ND	mg/L		0.01		E200.8	05/19/09 04:02 / eli-b		SUB-B129584 : 40		B_R129584
Zinc	ND	mg/L		0.01		E200.8	05/19/09 04:02 / eli-b		SUB-B129584 : 40		B_R129584

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



June 6, 2009

David Jensen
P. O. Box 1021
401 Gail Street
East Helena, Montana 59635

Dear Mr. Jensen:

Enclosed are the analytical results for the water samples that were collected from your ground water well on May 19, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Concentration Limits (MCL)/Action Levels for the constituents tested. These recent water quality results are consistent with previous monitoring data from your site and do not indicate significant changes from historical baseline data.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Nickel".

Jon Nickel

Enclosure

Cc: Bob Miller
Tom Aldrich



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
 Client Sample ID: EHR-0509-315
 Lab ID: H09050267-001
 Matrix: Groundwater

Jensen Residence
 401 Gail Street

Project: Annual RI/FS Long Term Monitoring May 2009
 Collection Date: 05/19/09 08:20 Date Received: 05/19/09
 Report Date: 06/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.4	s.u.		0.1		A4500-H B	05/20/09 11:24 / kjw		PH2_090520A : 42		090520A-PH-W
Conductivity	740	umhos/cm		1		A2510 B	05/20/09 10:35 / hm		COND_090520A : 2790520A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/26/09 11:49 / hm		SOLIDS_090526B : 3	090526A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	528	mg/L		10		A2540 C	05/26/09 10:55 / hm		SOLIDS_090526C : 3	090526A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		1		A2320 B	05/28/09 16:03 / hm		TITTR_090528B : 34		090528A-ALK-W
Bicarbonate as HCO3	150	mg/L		1		A2320 B	05/28/09 16:03 / hm		TITTR_090528B : 34		090528A-ALK-W
Chloride	26	mg/L		1		E300.0	05/22/09 05:14 / hm		IC101-H_090520B : 93		R53709
Sulfate	230	mg/L		1		E300.0	05/22/09 05:14 / hm		IC101-H_090520B : 93		R53709
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/22/09 19:40 / eli-b		SUB-B129915 : 1		B_R129915
Aluminum	ND	mg/L		0.1		E200.7	05/22/09 19:40 / eli-b		SUB-B129915 : 1		B_R129915
Antimony	ND	mg/L		0.003		E200.8	05/23/09 04:38 / eli-b		SUB-B129903 : 35		B_R129903
Arsenic	0.003	mg/L		0.002		E200.8	05/23/09 04:38 / eli-b		SUB-B129903 : 35		B_R129903
Barium	ND	mg/L		0.1		E200.7	05/22/09 19:40 / eli-b		SUB-B129915 : 1		B_R129915
Beryllium	ND	mg/L		0.001		E200.8	05/27/09 16:49 / eli-b		SUB-B130081 : 1		B_R130081
Cadmium	0.001	mg/L		0.001		E200.8	05/23/09 04:38 / eli-b		SUB-B129903 : 35		B_R129903
Calcium	92	mg/L		1		E200.7	05/22/09 19:40 / eli-b		SUB-B129915 : 1		B_R129915
Chromium	ND	mg/L		0.001		E200.8	05/23/09 04:38 / eli-b		SUB-B129903 : 35		B_R129903
Cobalt	ND	mg/L		0.01		E200.7	05/22/09 19:40 / eli-b		SUB-B129915 : 1		B_R129915
Copper	0.004	mg/L		0.001		E200.8	05/23/09 04:38 / eli-b		SUB-B129903 : 35		B_R129903
Gold	ND	mg/L		0.01		E200.7	05/22/09 19:40 / eli-b		SUB-B129915 : 1		B_R129915
Iron	0.19	mg/L		0.02		E200.7	05/22/09 19:40 / eli-b		SUB-B129915 : 1		B_R129915
Lead	ND	mg/L		0.005		E200.8	05/23/09 04:38 / eli-b		SUB-B129903 : 35		B_R129903
Magnesium	21	mg/L		1		E200.7	05/22/09 19:40 / eli-b		SUB-B129915 : 1		B_R129915
Manganese	0.03	mg/L		0.01		E200.7	05/22/09 19:40 / eli-b		SUB-B129915 : 1		B_R129915
Mercury	ND	mg/L		0.001		E200.8	05/23/09 04:38 / eli-b		SUB-B129903 : 35		B_R129903
Nickel	ND	mg/L		0.01		E200.7	05/22/09 19:40 / eli-b		SUB-B129915 : 1		B_R129915
Potassium	6	mg/L		1		E200.7	05/22/09 19:40 / eli-b		SUB-B129915 : 1		B_R129915
Selenium	0.027	mg/L		0.001		E200.8	05/23/09 04:38 / ell-b		SUB-B129903 : 35		B_R129903

Report RL - Analyte reporting limit.

Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-315
Lab ID: H09050267-001
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/19/09 08:20 Date Received: 05/19/09
Report Date: 06/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.7	05/22/09 19:40 / eli-b		SUB-B129915 : 1		B_R129915
Sodium	23	mg/L		1		E200.7	05/22/09 19:40 / eli-b		SUB-B129915 : 1		B_R129915
Thallium	ND	mg/L		0.001		E200.8	05/23/09 04:38 / eli-b		SUB-B129903 : 35		B_R129903
Vanadium	ND	mg/L		0.01		E200.7	05/22/09 19:40 / eli-b		SUB-B129915 : 1		B_R129915
Zinc	0.04	mg/L		0.01		E200.8	05/23/09 04:38 / eli-b		SUB-B129903 : 35		B_R129903

Report RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



Scott St. Clair
P. O. Box 306
107 East Groschell Street
East Helena, Montana 59635

June 6, 2009

Dear Mr. St. Clair:

Enclosed are the analytical results for the water samples that were collected from your irrigation groundwater well located at 107 East Groschell Street on May 19, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested with the exception of total dissolved arsenic, which was detected at concentrations of 0.031 mg/L. This concentration exceeds the level of 0.010 mg/L that have been deemed acceptable for drinking water supplied by public drinking water systems known as the Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL)/Action Level for arsenic. In addition, the total dissolved selenium was detected at 0.011 mg/L. The Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL)/Action Level for selenium is 0.050 mg/L.

These recent water quality results are consistent with previous monitoring data from your site and do not indicate a change from historical baseline data. Based on State of Montana and EPA water quality standards, the water from this well should **not** be used as a drinking water source, since the arsenic concentration in your irrigation groundwater well is not considered acceptable for public drinking water supplies.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Nickel". Below the signature, the name "Jon Nickel" is printed in a smaller, sans-serif font.

Enclosures

Cc: Bob Miller
Tom Aldrich



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-316
Lab ID: H09050267-002
Matrix: Groundwater

St. Clair Residence
107 E. Grschell

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/19/09 08:50 Date Received: 05/19/09
Report Date: 06/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.4	s.u.		0.1		A4500-H B	05/20/09 11:27 / kzw		PH2_090520A : 43		090520A-PH-W
Conductivity	457	umhos/cm		1		A2510 B	05/20/09 10:37 / hm		COND_090520A : 2890520A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/26/09 11:50 / hm		SOLIDs_090526B : 4	090526A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	296	mg/L		10		A2540 C	05/26/09 10:56 / hm		SOLIDs_090526C : 4	090526A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	100	mg/L		1		A2320 B	05/28/09 16:28 / hm		TITTR_090528B : 35		R53840
Bicarbonate as HCO3	130	mg/L		1		A2320 B	05/28/09 16:28 / hm		TITTR_090528B : 35		R53840
Chloride	8	mg/L		1		E300.0	05/22/09 05:31 / hm		IC101-H_090520B : 94		R53709
Sulfate	110	mg/L		1		E300.0	05/22/09 05:31 / hm		IC101-H_090520B : 94		R53709
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/22/09 19:44 / eli-b		SUB-B129915 : 2		B_R129915
Aluminum	ND	mg/L		0.1		E200.7	05/22/09 19:44 / eli-b		SUB-B129915 : 2		B_R129915
Antimony	ND	mg/L		0.003		E200.8	05/27/09 01:10 / eli-b		SUB-B129992 : 2		B_R129992
Arsenic	0.031	mg/L		0.002		E200.8	05/27/09 01:10 / eli-b		SUB-B129992 : 2		B_R129992
Barium	ND	mg/L		0.1		E200.7	05/22/09 19:44 / eli-b		SUB-B129915 : 2		B_R129915
Beryllium	ND	mg/L		0.001		E200.8	05/27/09 16:53 / eli-b		SUB-B130081 : 2		B_R130081
Cadmium	0.001	mg/L		0.001		E200.8	05/27/09 01:10 / eli-b		SUB-B129992 : 2		B_R129992
Calcium	40	mg/L		1		E200.7	05/22/09 19:44 / eli-b		SUB-B129915 : 2		B_R129915
Chromium	ND	mg/L		0.001		E200.8	05/27/09 01:10 / eli-b		SUB-B129992 : 2		B_R129992
Cobalt	ND	mg/L		0.01		E200.7	05/22/09 19:44 / eli-b		SUB-B129915 : 2		B_R129915
Copper	0.013	mg/L		0.001		E200.8	05/27/09 01:10 / eli-b		SUB-B129992 : 2		B_R129992
Gold	ND	mg/L		0.01		E200.7	05/22/09 19:44 / eli-b		SUB-B129915 : 2		B_R129915
Iron	ND	mg/L		0.02		E200.7	05/22/09 19:44 / eli-b		SUB-B129915 : 2		B_R129915
Lead	ND	mg/L		0.005		E200.8	05/27/09 01:10 / eli-b		SUB-B129992 : 2		B_R129992
Magnesium	9	mg/L		1		E200.7	05/22/09 19:44 / eli-b		SUB-B129915 : 2		B_R129915
Manganese	ND	mg/L		0.01		E200.7	05/22/09 19:44 / eli-b		SUB-B129915 : 2		B_R129915
Mercury	ND	mg/L		0.001		E200.8	05/27/09 01:10 / eli-b		SUB-B129992 : 2		B_R129992
Nickel	ND	mg/L		0.01		E200.7	05/22/09 19:44 / eli-b		SUB-B129915 : 2		B_R129915
Potassium	8	mg/L		1		E200.7	05/22/09 19:44 / eli-b		SUB-B129915 : 2		B_R129915
Selenium	0.011	mg/L		0.001		E200.8	05/27/09 01:10 / eli-b		SUB-B129992 : 2		B_R129992

Report RL - Analyte reporting limit.

Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-316
Lab ID: H09050267-002
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/19/09 08:50 Date Received: 05/19/09
Report Date: 06/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.7	05/22/09 19:44 / eli-b		SUB-B129915 : 2		B_R129915
Sodium	32	mg/L		1		E200.7	05/22/09 19:44 / eli-b		SUB-B129915 : 2		B_R129915
Thallium	ND	mg/L		0.001		E200.8	05/27/09 01:10 / eli-b		SUB-B129992 : 2		B_R129992
Vanadium	ND	mg/L		0.01		E200.7	05/22/09 19:44 / eli-b		SUB-B129915 : 2		B_R129915
Zinc	0.01	mg/L		0.01		E200.8	05/27/09 16:53 / eli-b		SUB-B130081 : 2		B_R130081

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



June 6, 2009

Mr. and Mrs. Gene Gage
210 East Groschell Street
P. O. Box 731
East Helena, Montana 59635

Dear Mr. and Mrs. Gage:

Enclosed are the analytical results for the water sample that was collected from your ground water well on May 19, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of your well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested. These recent water quality results are consistent with previous monitoring data from your site and do not indicate significant changes from historical baseline data.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Nickel".

Jon Nickel

Enclosures

Cc: Bob Miller
Tom Aldrich



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Toll Free 877.472.0711 * 406.442.0711 * FAX 406.442.0712 * helena@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-317
Lab ID: H09050267-003
Matrix: Groundwater

Gage Residence
210 E.Groschell

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/19/09 09:15 **Date Received:** 05/19/09
Report Date: 06/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.3	s.u.		0.1		A4500-H B	05/20/09 11:28 / kzw		PH2_090520A : 44		090520A-PH-W
Conductivity	471	umhos/cm		1		A2510 B	05/20/09 10:39 / hm		COND_090520A : 2990520A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/26/09 11:50 / hm		SOLIDS_090526B : 5	090526A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	267	mg/L		10		A2540 C	05/26/09 10:56 / hm		SOLIDS_090526C : 5	090526A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	99	mg/L		1		A2320 B	05/28/09 16:33 / hm		TITTR_090528B : 38		090528A-ALK-W
Bicarbonate as HCO3	120	mg/L		1		A2320 B	05/28/09 16:33 / hm		TITTR_090528B : 38		090528A-ALK-W
Chloride	7	mg/L		1		E300.0	05/22/09 05:47 / hm		IC101-H_090520B : 95		R53709
Sulfate	96	mg/L		1		E300.0	05/22/09 05:47 / hm		IC101-H_090520B : 95		R53709
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/22/09 19:48 / eli-b		SUB-B129915 : 3		B_R129915
Aluminum	ND	mg/L		0.1		E200.7	05/22/09 19:48 / eli-b		SUB-B129915 : 3		B_R129915
Antimony	ND	mg/L		0.003		E200.8	05/27/09 01:14 / eli-b		SUB-B129992 : 3		B_R129992
Arsenic	ND	mg/L		0.002		E200.8	05/27/09 01:14 / eli-b		SUB-B129992 : 3		B_R129992
Barium	ND	mg/L		0.1		E200.7	05/22/09 19:48 / eli-b		SUB-B129915 : 3		B_R129915
Beryllium	ND	mg/L		0.001		E200.8	05/27/09 16:57 / eli-b		SUB-B130081 : 3		B_R130081
Cadmium	0.001	mg/L		0.001		E200.8	05/27/09 01:14 / eli-b		SUB-B129992 : 3		B_R129992
Calcium	41	mg/L		1		E200.7	05/22/09 19:48 / eli-b		SUB-B129915 : 3		B_R129915
Chromium	ND	mg/L		0.001		E200.8	05/27/09 01:14 / eli-b		SUB-B129992 : 3		B_R129992
Cobalt	ND	mg/L		0.01		E200.7	05/22/09 19:48 / eli-b		SUB-B129915 : 3		B_R129915
Copper	0.002	mg/L		0.001		E200.8	05/27/09 01:14 / eli-b		SUB-B129992 : 3		B_R129992
Gold	ND	mg/L		0.01		E200.7	05/22/09 19:48 / eli-b		SUB-B129915 : 3		B_R129915
Iron	0.04	mg/L		0.02		E200.7	05/22/09 19:48 / eli-b		SUB-B129915 : 3		B_R129915
Lead	ND	mg/L		0.005		E200.8	05/27/09 01:14 / eli-b		SUB-B129992 : 3		B_R129992
Magnesium	9	mg/L		1		E200.7	05/22/09 19:48 / eli-b		SUB-B129915 : 3		B_R129915
Manganese	ND	mg/L		0.01		E200.7	05/22/09 19:48 / eli-b		SUB-B129915 : 3		B_R129915
Mercury	ND	mg/L		0.001		E200.8	05/27/09 01:14 / eli-b		SUB-B129992 : 3		B_R129992
Nickel	ND	mg/L		0.01		E200.7	05/22/09 19:48 / eli-b		SUB-B129915 : 3		B_R129915
Potassium	4	mg/L		1		E200.7	05/22/09 19:48 / eli-b		SUB-B129915 : 3		B_R129915
Selenium	0.006	mg/L		0.001		E200.8	05/27/09 01:14 / eli-b		SUB-B129992 : 3		B_R129992

Report RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-317
Lab ID: H09050267-003
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/19/09 09:15 Date Received: 05/19/09
Report Date: 06/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.7	05/22/09 19:48 / eli-b		SUB-B129915 : 3		B_R129915
Sodium	27	mg/L		1		E200.7	05/22/09 19:48 / eli-b		SUB-B129915 : 3		B_R129915
Thallium	ND	mg/L		0.001		E200.8	05/27/09 01:14 / eli-b		SUB-B129992 : 3		B_R129992
Vanadium	ND	mg/L		0.01		E200.7	05/22/09 19:48 / eli-b		SUB-B129915 : 3		B_R129915
Zinc	0.01	mg/L		0.01		E200.8	05/27/09 16:57 / eli-b		SUB-B130081 : 3		B_R130081

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



June 6, 2009

Matt Balcerzak
701 Manlove
P. O. Box 623
East Helena, Montana 59635

Dear Mr. Balcerzak:

Enclosed are the analytical results for the water sample (both original and duplicate) that was collected from your home ground water well (701 Manlove) on May 19, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The sampling results for your well show that your water quality meets Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested with the exception of total dissolved arsenic, which was detected at concentrations of 0.013 mg/L in both the original and duplicate samples. This concentration exceeds the level of 0.010 mg/L that have been deemed acceptable for drinking water supplied by public drinking water systems known as the Montana Human Health Standard and the Federal Maximum Contaminant Level (MCL)/Action Level for arsenic.

These recent water quality results are consistent with previous monitoring data from your site and do not indicate a change from historical baseline data. Based on State of Montana and EPA water quality standards, the water from this well should **not** be used as a drinking water source, since the arsenic concentration in your groundwater well is not considered acceptable for public drinking water supplies.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Nickel".

Jon Nickel

Enclosure

Cc: Bob Miller
Tom Aldrich



ENERGY LABORATORIES, INC. * 3161 E Lyndale (59604) * PO Box 5688 * Helena, MT 59601
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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-318
Lab ID: H09050267-004
Matrix: Groundwater

Balcerzak Residence (Original)
701 Manlove

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/19/09 09:40 Date Received: 05/19/09
Report Date: 06/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	05/20/09 11:29 / kjw		PH2_090520A : 45		090520A-PH-W
Conductivity	682	umhos/cm		1		A2510 B	05/20/09 10:41 / hm		COND_090520A : 3090520A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/26/09 11:51 / hm		SOLIDS_090526B : 6	090526A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	471	mg/L		10		A2540 C	05/26/09 10:56 / hm		SOLIDS_090526C : 6	090526A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		1		A2320 B	05/28/09 16:46 / hm		TITTR_090528B : 40		090528A-ALK-W
Bicarbonate as HCO3	220	mg/L		1		A2320 B	05/28/09 16:46 / hm		TITTR_090528B : 40		090528A-ALK-W
Chloride	28	mg/L		1		E300.0	05/22/09 06:04 / hm		IC101-H_090520B : 96		R53709
Sulfate	110	mg/L		1		E300.0	05/22/09 06:04 / hm		IC101-H_090520B : 96		R53709
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/22/09 19:52 / eli-b		SUB-B129915 : 4		B_R129915
Aluminum	ND	mg/L		0.1		E200.7	05/22/09 19:52 / eli-b		SUB-B129915 : 4		B_R129915
Antimony	ND	mg/L		0.003		E200.8	05/27/09 01:46 / eli-b		SUB-B129992 : 4		B_R129992
Arsenic	0.013	mg/L		0.002		E200.8	05/27/09 01:46 / eli-b		SUB-B129992 : 4		B_R129992
Barium	ND	mg/L		0.1		E200.7	05/22/09 19:52 / eli-b		SUB-B129915 : 4		B_R129915
Beryllium	ND	mg/L		0.001		E200.8	05/27/09 17:01 / eli-b		SUB-B130081 : 4		B_R130081
Cadmium	ND	mg/L		0.001		E200.8	05/27/09 01:46 / eli-b		SUB-B129992 : 4		B_R129992
Calcium	68	mg/L		1		E200.7	05/22/09 19:52 / eli-b		SUB-B129915 : 4		B_R129915
Chromium	ND	mg/L		0.001		E200.8	05/27/09 01:46 / eli-b		SUB-B129992 : 4		B_R129992
Cobalt	ND	mg/L		0.01		E200.7	05/22/09 19:52 / eli-b		SUB-B129915 : 4		B_R129915
Copper	0.003	mg/L		0.001		E200.8	05/27/09 01:46 / eli-b		SUB-B129992 : 4		B_R129992
Gold	ND	mg/L		0.01		E200.7	05/22/09 19:52 / eli-b		SUB-B129915 : 4		B_R129915
Iron	ND	mg/L		0.02		E200.7	05/22/09 19:52 / eli-b		SUB-B129915 : 4		B_R129915
Lead	ND	mg/L		0.005		E200.8	05/27/09 01:46 / eli-b		SUB-B129992 : 4		B_R129992
Magnesium	18	mg/L		1		E200.7	05/22/09 19:52 / eli-b		SUB-B129915 : 4		B_R129915
Manganese	ND	mg/L		0.01		E200.7	05/22/09 19:52 / eli-b		SUB-B129915 : 4		B_R129915
Mercury	ND	mg/L		0.001		E200.8	05/27/09 01:46 / eli-b		SUB-B129992 : 4		B_R129992
Nickel	ND	mg/L		0.01		E200.7	05/22/09 19:52 / eli-b		SUB-B129915 : 4		B_R129915
Potassium	14	mg/L		1		E200.7	05/22/09 19:52 / eli-b		SUB-B129915 : 4		B_R129915
Selenium	0.001	mg/L		0.001		E200.8	05/27/09 01:46 / eli-b		SUB-B129992 : 4		B_R129992

Report RL - Analyte reporting limit.

Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-318
Lab ID: H09050267-004
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/19/09 09:40 Date Received: 05/19/09
Report Date: 06/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.7	05/22/09 19:52 / eli-b		SUB-B129915 : 4		B_R129915
Sodium	36	mg/L		1		E200.7	05/22/09 19:52 / eli-b		SUB-B129915 : 4		B_R129915
Thallium	ND	mg/L		0.001		E200.8	05/27/09 01:46 / eli-b		SUB-B129992 : 4		B_R129992
Vanadium	0.01	mg/L		0.01		E200.8	05/27/09 01:46 / eli-b		SUB-B129992 : 4		B_R129992
Zinc	ND	mg/L		0.01		E200.7	05/22/09 19:52 / eli-b		SUB-B129915 : 4		B_R129915

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-319
Lab ID: H09050267-005
Matrix: Groundwater

Balcerzak Residence (Duplicate)
 701 Manlove

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/19/09 10:00 **Date Received:** 05/19/09
Report Date: 06/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.9	s.u.		0.1		A4500-H B	05/20/09 11:34 / kzw		PH2_090520A : 47		090520A-PH-W
Conductivity	681	umhos/cm		1		A2510 B	05/20/09 10:48 / hm		COND_090520A : 3290520A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	ND	mg/L		10		A2540 D	05/26/09 11:51 / hm		SOLIDS_090526B : 7	090526A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	472	mg/L		10		A2540 C	05/26/09 10:57 / hm		SOLIDS_090526C : 7	090526A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	180	mg/L		1		A2320 B	05/28/09 16:56 / hm		TITTR_090528B : 41		090528A-ALK-W
Bicarbonate as HCO3	220	mg/L		1		A2320 B	05/28/09 16:56 / hm		TITTR_090528B : 41		090528A-ALK-W
Chloride	28	mg/L		1		E300.0	05/22/09 06:53 / hm		IC101-H_090520B : 99		R53709
Sulfate	110	mg/L		1		E300.0	05/22/09 06:53 / hm		IC101-H_090520B : 99		R53709
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/22/09 20:04 / eli-b		SUB-B129915 : 5		B_R129915
Aluminum	ND	mg/L		0.1		E200.7	05/22/09 20:04 / eli-b		SUB-B129915 : 5		B_R129915
Antimony	ND	mg/L		0.003		E200.8	05/27/09 01:50 / eli-b		SUB-B129992 : 5		B_R129992
Arsenic	0.013	mg/L		0.002		E200.8	05/27/09 01:50 / eli-b		SUB-B129992 : 5		B_R129992
Barium	ND	mg/L		0.1		E200.7	05/22/09 20:04 / eli-b		SUB-B129915 : 5		B_R129915
Beryllium	ND	mg/L		0.001		E200.8	05/27/09 17:34 / eli-b		SUB-B130081 : 5		B_R130081
Cadmium	ND	mg/L		0.001		E200.8	05/27/09 01:50 / eli-b		SUB-B129992 : 5		B_R129992
Calcium	69	mg/L		1		E200.7	05/22/09 20:04 / eli-b		SUB-B129915 : 5		B_R129915
Chromium	0.001	mg/L		0.001		E200.8	05/27/09 01:50 / eli-b		SUB-B129992 : 5		B_R129992
Cobalt	ND	mg/L		0.01		E200.7	05/22/09 20:04 / eli-b		SUB-B129915 : 5		B_R129915
Copper	0.004	mg/L		0.001		E200.8	05/27/09 01:50 / eli-b		SUB-B129992 : 5		B_R129992
Gold	ND	mg/L		0.01		E200.7	05/22/09 20:04 / eli-b		SUB-B129915 : 5		B_R129915
Iron	ND	mg/L		0.02		E200.7	05/22/09 20:04 / eli-b		SUB-B129915 : 5		B_R129915
Lead	ND	mg/L		0.005		E200.8	05/27/09 01:50 / eli-b		SUB-B129992 : 5		B_R129992
Magnesium	19	mg/L		1		E200.7	05/22/09 20:04 / eli-b		SUB-B129915 : 5		B_R129915
Manganese	ND	mg/L		0.01		E200.7	05/22/09 20:04 / eli-b		SUB-B129915 : 5		B_R129915
Mercury	ND	mg/L		0.001		E200.8	05/27/09 01:50 / eli-b		SUB-B129992 : 5		B_R129992
Nickel	ND	mg/L		0.01		E200.7	05/22/09 20:04 / eli-b		SUB-B129915 : 5		B_R129915
Potassium	14	mg/L		1		E200.7	05/22/09 20:04 / eli-b		SUB-B129915 : 5		B_R129915
Selenium	0.002	mg/L		0.001		E200.8	05/27/09 01:50 / eli-b		SUB-B129992 : 5		B_R129992

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-319
Lab ID: H09050267-005
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/19/09 10:00 Date Received: 05/19/09
Report Date: 06/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.7	05/22/09 20:04 / eli-b		SUB-B129915 : 5		B_R129915
Sodium	36	mg/L		1		E200.7	05/22/09 20:04 / eli-b		SUB-B129915 : 5		B_R129915
Thallium	ND	mg/L		0.001		E200.8	05/27/09 01:50 / eli-b		SUB-B129992 : 5		B_R129992
Vanadium	0.01	mg/L		0.01		E200.8	05/27/09 01:50 / eli-b		SUB-B129992 : 5		B_R129992
Zinc	ND	mg/L		0.01		E200.7	05/22/09 20:04 / eli-b		SUB-B129915 : 5		B_R129915

Report Definitions: RL - Analyte reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



June 6, 2009

Neil Blossom
American Chemet
P. O. Box 1160
1 Smelter Road
East Helena, Montana 59635

Dear Mr. Blossom:

Enclosed are the analytical results for the water samples that were collected from the American Chemet No. 4 groundwater well on May 19, 2009. All the results are reported in milligrams per liter, unless otherwise noted. The physical parameters are reported in the units noted on the attached laboratory analytical report. "ND" indicates that the parameter was not detected at the reporting limit.

The water quality of the American Chemet No. 4 groundwater well is good with near neutral pH and low levels of total dissolved solids and metals. The water quality of the well is better than the Montana Human Health Standards and Federal Maximum Contaminant Level (MCL)/Action Levels for the constituents tested. These recent water quality results are consistent with previous monitoring data from your site and do not indicate significant changes from historical baseline data.

If you have any questions about the enclosed water quality results, please feel free to contact me at 227-4529.

Sincerely,

A handwritten signature in black ink that reads "Jon Nickel".

Jon Nickel

Enclosures

Cc: Bob Miller
Tom Aldrich



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-320 **American Chemet No. 4 Well**
Lab ID: H09050267-006
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/19/09 10:40 **Date Received:** 05/19/09
Report Date: 06/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
pH	7.6	s.u.		0.1		A4500-H B	05/20/09 11:36 / kzw		PH2_090520A : 48		090520A-PH-W
Conductivity	338	umhos/cm		1		A2510 B	05/20/09 10:53 / hm		COND_090520A : 3390520A-COND-PROB		
Solids, Total Suspended TSS @ 105 C	94	mg/L		10		A2540 D	05/26/09 11:52 / hm		SOLIDS_090526B : 8	090526A-SLDS-TSS-	
Solids, Total Dissolved TDS @ 180 C	253	mg/L		10		A2540 C	05/26/09 10:58 / hm		SOLIDS_090526C : 8	090526A-SLDS-TDS-	
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		1		A2320 B	05/28/09 17:06 / hm		TITTR_090528B : 42		090528A-ALK-W
Bicarbonate as HCO3	140	mg/L		1		A2320 B	05/28/09 17:06 / hm		TITTR_090528B : 42		090528A-ALK-W
Chloride	5	mg/L		1		E300.0	05/22/09 07:09 / hm		IC101-H_090520B : 100		RS3709
Sulfate	45	mg/L		1		E300.0	05/22/09 07:09 / hm		IC101-H_090520B : 100		RS3709
METALS, DISSOLVED											
Tellurium	ND	mg/L		0.1		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915
Aluminum	ND	mg/L		0.1		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915
Antimony	ND	mg/L		0.003		E200.8	05/27/09 01:55 / eli-b		SUB-B129992 : 6		B_R129992
Arsenic	ND	mg/L		0.002		E200.8	05/27/09 01:55 / eli-b		SUB-B129992 : 6		B_R129992
Barium	ND	mg/L		0.1		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915
Beryllium	ND	mg/L		0.001		E200.8	05/27/09 17:38 / eli-b		SUB-B130081 : 6		B_R130081
Cadmium	ND	mg/L		0.001		E200.8	05/27/09 01:55 / eli-b		SUB-B129992 : 6		B_R129992
Calcium	38	mg/L		1		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915
Chromium	ND	mg/L		0.001		E200.8	05/27/09 01:55 / eli-b		SUB-B129992 : 6		B_R129992
Cobalt	ND	mg/L		0.01		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915
Copper	0.001	mg/L		0.001		E200.8	05/27/09 01:55 / eli-b		SUB-B129992 : 6		B_R129992
Gold	ND	mg/L		0.01		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915
Iron	ND	mg/L		0.02		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915
Lead	ND	mg/L		0.005		E200.8	05/27/09 01:55 / eli-b		SUB-B129992 : 6		B_R129992
Magnesium	9	mg/L		1		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915
Manganese	ND	mg/L		0.01		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915
Mercury	ND	mg/L		0.001		E200.8	05/27/09 01:55 / eli-b		SUB-B129992 : 6		B_R129992
Nickel	ND	mg/L		0.01		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915
Potassium	4	mg/L		1		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915
Selenium	ND	mg/L		0.001		E200.8	05/27/09 01:55 / eli-b		SUB-B129992 : 6		B_R129992

Report RL - Analyte reporting limit.

Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Asarco LLC
Client Sample ID: EHR-0509-320
Lab ID: H09050267-006
Matrix: Groundwater

Project: Annual RI/FS Long Term Monitoring May 2009
Collection Date: 05/19/09 10:40 DateReceived: 05/19/09
Report Date: 06/08/09

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Silver	ND	mg/L		0.005		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915
Sodium	15	mg/L		1		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915
Thallium	ND	mg/L		0.001		E200.8	05/27/09 01:55 / eli-b		SUB-B129992 : 6		B_R129992
Vanadium	ND	mg/L		0.01		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915
Zinc	ND	mg/L		0.01		E200.7	05/22/09 20:08 / eli-b		SUB-B129915 : 6		B_R129915

Report RL - Analyte reporting limit.
Definitions:

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.